Observations of Seawater Temperature and Salinity at British Columbia Shore Stations 1981

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En général, les rapports contiennent des données brutes ou analysées mais ne fournissent pas d'interprétations des données. Ces compilations sont préparées le plus souvent à l'appui de travaux reliés aux programmes et intérêts du service des Sciences et Levés océaniques (SLO) du ministère des Pêches et des Océans.

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Les établissements des Sciences et Levés océaniques dans les régions et à l'administration centrale ont cessé de publier leurs diverses séries de rapports depuis décembre 1981. Vous trouverez dans l'index des publications du volume 38 du *Journal canadien des sciences halieutiques et aquatiques*, la liste de ces publications ainsi que le dernier numéro paru dans chaque catégorie. La nouvelle série a commencé avec la publication du Rapport n° 1 en janvier 1982.

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by

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ABSTRACT

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Surface oceanic salinities and temperatures have been recorded once a day at several locations on the coast of British Columbia for varying lengths of time--from about one year to several decades. This publication presents the data obtained in 1981 from eighteen such shore stations.

The data obtained are presented in two forms. Firstly, tables provide, for each site, the monthly means and the associated standard deviations, as well as the maximum and minimum values recorded during each month; the annual means are also listed. Secondly, graphs indicate the behaviour, throughout the year, of the data after the higher-frequency oscillations (e.g., those associated with lunar tides) have been removed by the use of a seven-day normally-weighted running mean.

Keywords: British Columbia, shorestations, surface temperatures, surface salinities.

RÉSUMÉ

Giovando, L.F. 1983. Observations of Seawater Temperature and Salinity at British Columbia Shore Stations 1981. Can. Data Rep. Hydrogr. Ocean Sci. 13:127 p.

Les températures et salinités des eaux océaniques superficielles ont été relevées une fois par jour à de nombreux endroits le long de la côte de la Colombie-Britannique, pendant diverses périodes variant d'environ un an à plusieurs décennies. Le présent rapport porte sur les données obtenues en 1981 à 18 de ces stations côtières.

Cette information est présentée sous deux formes. La première consiste en des tableaux qui regroupent les moyennes mensuelles et les écarts types, les valeurs minimale et maximale relevées chaque mois et les moyennes annuelles pour chaque site. Viennent ensuite des graphiques illustrant le comportement des données pendant toute l'année, après que les oscillations de plus haute fréquence (par ex. celles associées avec les marées lunaires) ont été éliminées à l'aide d'une moyenne cumulée normalement pondérée sur 7 jours.

Mots-clés: Colombie-Britannique, stations côtières, températures et salinités superficielles

INTRODUCTION

A program involving once-daily observations of sea-surface salinities and/or temperatures at numerous locations on the coast of British Columbia has been in effect since the early 1930's. Most of these sampling sites have been at lightstations operated by the Ministry of Transport (MOT) or its organizational predecessors. The number of sites reporting at any given time has varied throughout the course of the program; sampling has been discontinued (and in a few cases later resumed) at some places and commenced (not necessarily simultaneously) at others. All available data obtained from these shorestations prior to 1981 have been published in various formats (e.g. Giovando 1981, 1983; Hollister and Sandnes, 1972).

During recent years, nineteen such locations have usually provided sea-surface data. Fifteen of these are MOT lightstations. The remaining four are: the Pacific Biological Station (of the Department of Fisheries and Oceans (DFO)[1]) at Departure Bay; the West Vancouver Laboratory (West Van)--formerly the Pacific Environment Institute[1]--also of DFO; the Western Canadian Universities Marine Biological Station at Bamfield; and the meteorological station (of the Atmospheric Environment Service (AES) of the Department of Environment (DOE)[1]) at Cape St. James. All of these stations except Bamfield reported data during 1981.

The stations in question are shown (underlined) in Figure 1. Table 1 lists them in *northwest-to-southeast* order, along the "outside coast" (Langara Island to Race Rocks) and along the Strait of Georgia (Cape Mudge to Active Pass); the general location of each station, as well as the names of the observers that obtained the data during 1981, are also given.

OBSERVATIONAL EQUIPMENT AND PROCEDURES

Except at Cape Beale and Active Pass, each daily observation was made at daytime high tide. At Cape Beale, sampling was carried out one hour before the daytime high tide. At Active Pass, observations were done at daylight high-water slack. All sampling times were determined by reference to the Canadian Tide and Current Tables (Fisheries and Oceans, 1981). On occasion--because of weather conditions or of the press of the observer's primary duties--the schedule could not be strictly adhered to; however, results obtained *within ± one hour of the desired time* were recorded. For reasons of observer safety, sampling was never attempted in darkness at any station.

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[1] On 1 April 1977, the Pacific Environment Institute became the West Vancouver Laboratory. On 1 April 1979, the then Department of Fisheries and Environment (DFE) was split into two new Departments--Fisheries and Oceans (DFO), and Environment (DOE).

(a) Temperature

At all *eighteen* stations, water temperature was measured by means of a mercury-in-glass thermometer. At fifteen (all except Departure Bay, West Van, and Cape Beale), the thermometers used in 1981 recorded in degrees Fahrenheit (^{o}F), as has been the case since the inception of sampling. The instruments cover the range -10^{o} to 145^{o}F, and are graduated in 1^{o} intervals. At the remaining three stations Celsius thermometers, of range -10^{o} to 60^{o} and of interval 0.5^{o}C, were employed. The seawater temperature was estimated to within $\pm$0.1^{o}F or $\pm$0.1^{o}C. (Before being sent to a station, each thermometer is checked against a calibrated instrument; the maximum error allowed is $\pm$0.4^{o}F or $\pm$0.2^{o}C.)

Because of the near-total predominance of the Celsius scale that now prevails in marine affairs, all shorestation sea-surface temperature data obtained subsequent to 1977 have been published in ^{o}C. Therefore, for those stations still utilizing Fahrenheit thermometers in 1981, the original readings were converted to the corresponding Celsius values--rounded off to the first decimal place. The ^{o}F thermometers presently in use are being replaced by ^{o}C ones (-25^{o} to +55^{o}, interval 1^{o}) as attrition demands.

At most stations, the thermometer is (partially) enclosed in a protective case of 2.5-cm (1-in) aluminum pipe; this case also provides a "well" around the bulb of the thermometer. The case is attached to the end of a pole (also of aluminum pipe) which can be as long as about 6m (20 ft); the greater pole lengths are necessary at sites where observations are carried out from steep bluffs. The thermometer is lowered to a depth of 1m, and left for about two minutes. It is then raised and the water temperature recorded. (At a few of these stations, seawater is obtained by bucket during inclement weather). At the remaining sampling sites, either a bucket or a Van Dorn sampling bottle is used for all oceanographic observations. When bucket or bottle is used, the temperature recorded is that obtained by "immediate" immersion of the thermometer in the water thus collected.

(b) Salinity

Salinities were determined at *sixteen* stations (all except Cape St. James[2] and West Van[3]). At the sites at which the pole assembly is usually utilized, a plastic or glass bottle--usually of about 710-cc (25-oz) capacity--is also attached to the assembly. The uncapped bottle will fill during immersion. At the same time that the temperature of the water is recorded, a sample is drawn from the bottle for use in the

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[2]Measurement of salinity was discontinued at Cape St. James on 31 May 1971.

[3]Only temperature has been measured at West Van since sampling began there on 3 December 1979.

determination of salinity. For those sites where a bucket (e.g. Cape Beale) or a bottle (e.g. Bamfield) is used, the salinity sample is drawn from the bucket or bottle.

At all but two of these sixteen stations, the density of each sample was determined by hydrometer. (The salinity, in ^{o}/oo (parts per thousand), is then obtained from this value of density.) The hydrometers employed are similar to those used by the U.S. Coast and Geodetic Survey (USC&GS) at its tidal stations[4]; they actually measure the *specific gravity*[5] of a seawater sample. Specific gravity is a ratio of two densities and is therefore a dimensionless quantity. If however, by definition, distilled water at a temperature 4^{o}C (39.2^{o}F) has a density ρ_m=1, then the specific gravity of a substance having a density ρ is $\frac{\rho}{\rho_m}$ and will be numerically equal to the value of ρ.

The density (or specific gravity) of a seawater sample depends upon both the salinity (the quantity of dissolved material in the sample) *and* the temperature of the sample at the time the measurement is made. Densities determined by hydrometer without temperature control must therefore be reduced to some "standard" temperature for conversion to the corresponding salinities. The standard adopted for this program is 15^{o}C (59^{o}F), the same as that presently used by the USC&GS.

An expression of the general form *Sp. Gr. Tp.* (or *Temp.*) $\frac{15}{4^{o}C}$ is provided on every hydrometer utilized in this program. It incorporates both the basis of specific gravity (distilled water at $\underline{4^{o}C}$ (39.2^{o}F)) and the standard temperature ($\underline{15^{o}C}$, or 59^{o}F) employed.

Hydrometers are supplied to the stations in one or more of three ranges of specific gravity: 0.9960--1.0110, 1.0100--1.0210, and 1.0200-1.0310. The scales are divided into intervals of 0.0002, and the values are estimated to $\pm$0.0001; the instruments are read employing techniques described by the USC&GS (Adams, 1942). Each instrument has its calibration checked immediately before being sent to a station.

Salinities at Departure Bay were determined by means of a laboratory inductive (electrodeless) salinometer--an Auto-Lab Model Mark III. Values were estimated to the nearest 0.001^{o}/oo. The accuracy of this model is claimed to be $\pm$0.003^{o}/oo with duplicate determinations.

It may be noted that "comparison" determinations involving several dozen samples collected at British Columbia shorestations have indicated that about 85% of the "hydrometer" salinity values were within $\pm$0.3^{o}/oo of the corresponding ones obtained by salinometer (Hollister, unpublished).

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[4]Since 1970, the USC&GS has been a component of the National Ocean Surveys of the National Oceanic and Atmospheric Administration (NOAA).

[5]It should be noted that the term "specific gravity" has recently been replaced, in scientific usage at least, by the term "relative density."

Because of a continuing incapacity of inductive-salinometry equipment (see Giovando, 1983), samples obtained from Cape Beale were analysed by means of an American Optical Corporation salinity refractometer having automatic temperature compensation. The accuracy of this instrument is believed to be about $\pm 0.8^{o}$/oo. Readings were estimated to the equivalent of about $\pm 0.4^{o}$/oo.

The time of each daily observation, as well as the associated seawater temperature and hydrometer, salinometer or refractometer readings, were recorded on monthly field sheets. These sheets were forwarded to West Van, where they underwent preliminary processing.

PRELIMINARY PROCESSING OF THE DATA

The temperature data were scanned, and values were rejected if it was discovered that a faulty thermometer had been used, or if the value was obviously the result of a misreading or of any other error in technique. Observed hydrometer readings were reduced to densities at the standard temperature, 15^{o}C (59^{o}F), by means of tables prepared by the USC&GS (Zerbe and Taylor, 1953). The appropriate calibration correction was then applied to each such density value. These corrected values were in turn converted to salinities. A salinity value was rejected, again, only if it obviously had resulted from a misreading of hydrometer, salinometer or refractometer or from other procedural errors.

If observations were missing for *one* day or for *two consecutive* days, the resulting gap was filled by value(s) obtained by linear interpolation utilizing the two observations bounding the gap. No interpolation was undertaken in those cases for which readings had been missed for *three or more* consecutive days (whether by accident or by design). Interpolated values were used to provide continuity to graphical representation of the data (see next section).

The salinity values determined by inductive salinometer were reported, in "final" form, to *two* decimal places. Those obtained by hydrometer or by refractometer were reported to only *one* decimal place, because of the lesser accuracy of these instruments compared to that of the salinometer.

MACHINE PROCESSING OF THE DATA

The daily temperature and salinity data remaining after the preliminary procedures noted above were processed into final form by the Marine Environmental Data Service (MEDS), of DFO, in Ottawa, Ontario. For each station, this computer processing involved the determination of the twelve monthly means for temperature and for salinity, as well as of the

corresponding standard deviations. The annual means were also computed (Somers, 1965). All such means--except those associated with salinity for months during which a salinometer was utilized--were rounded to *one* decimal place, and the corresponding standard deviations were truncated at the *second* decimal place. The remaining means were rounded to *two* places, and the corresponding standard deviations were truncated at the *third* place. Data obtained by interpolation *were not* utilized in the computation of the means.

A form of smoothing was performed on the data to minimize the effect of any variability associated with frequencies large compared to the annual frequency (those associated with lunar tides, for example). For simplicity, the daily values of salinity and/or temperature at each sampling station were here considered to be equally spaced in time--with a sampling interval, therefore, of 24 hours. A seven-day, normally-weighted running mean (Holloway, 1958) was utilized to smooth the resulting series; this form of filtering is considered to result in an output free of such defects as "polarity reversals" or phase shifts. The running mean was computed, for the entire year, for both temperature and salinity. In order that these means for each station be as continuous as possible consistent with the data involved, daily values obtained by interpolation *were* utilized in the associated computations. However, when a period of greater than *two* consecutive days of missed data was encountered the computations were "interrupted."

PRESENTATION OF DATA

The data from each station are presented in two forms:

(1) Tabulations, in monthly format, of the daily values of temperature in ^{o}C and of salinity in parts per thousand ($^{o}/_{oo}$)--pages 18 to 89. The results are listed in the same station order as that given in Table 1. Three months' data are listed on each page. Also recorded for each month are the mean, the standard deviation (STD. DEV.), the number of observations (OBSVNS.) involved in the computations of these two quantities, and the MAXIMUM and MINIMUM values. The *annual* means (YRLY. MEANS) for temperature and salinity are included with the December output for each station. Each interpolated daily value is identified by an asterisk (*). "Missed" values with which no interpolation is associated are denoted by a * followed by a blank space. Invalid days, such as April 31, are indicated by a blank space alone. Both the latitude and the longitude of each station (in degrees, minutes and seconds) are noted on every page, immediately after the station designation. For ease in reference, the monthly- and annual-mean temperatures and salinities have been summarized. Temperature in ^{o}C are given in Table 2. In addition, the ^{o}F equivalents of the values in Table 2 are provided in Table 3--primarily for the convenience of those who, because of either choice or necessity, still employ the Fahrenheit scale. The corresponding salinities are given in Table 4.

(2) "Annual" graphs of the seven-day, normally-weighted running means for temperature and salinity--pages 92 to 127.
These graphs are copies of the computer-generated plots of the means. Any interruption--due to missing data--in the associated computations will result in a gap in the plotted output as well. Each graph for temperature is provided with scales in both ^{o}C and ^{o}F.

(a) Circumstances beyond the control of the sampling program have resulted in significant data shortfalls at some stations:

(i) At Bamfield, no sampling was carried out during the year (as previously noted--page 1).

(ii) At Departure Bay, observations have *not*--since May 1974--been carried out on weekends (Saturdays and Sundays) or on statutory holidays. The maximum number of (non-interpolated) values available for determination of any monthly mean has therefore been permanently reduced from, approximately, thirty to twenty at this site. Also no sampling was carried out at this site during May 1981, and very few observations were obtained in April (4), December (9) and March (7 for salinity).

In the "overall" view provided by the monthly-mean summaries in Tables 2, 3 and 4, the reader is alerted to the presence of "data-poor" months by the symbols "++" and "+". In these tables, those months for which 1 to 10 (11 to 20) values of temperature of salinity were recorded have been flagged by ++(+); it is hoped that these (admittedly-arbitrary) designations will emphasize the need for circumspection in the use of the data involved.

(b) At Pine Island and Egg Island, a few salinities of $33^{o}/oo$ or more were recorded during 1981--5 at Pine (4 in May, 1 in June) and 2 at Egg (August). Such values have also been obtained in some previous years at B.C. shorestations (see e.g. Giovando, 1983). All physical-oceanographic studies so far conducted indicate that such values of salinity are extremely unlikely to occur in the nearshore surface waters of B.C. The observer at the station had previously been apprised of this fact, and therefore checked both equipment and procedures thoroughly during the "high-value" periods. No obvious faults or errors were revealed; however, with due regard to the uncertainties associated with salinities determined by hydrometer, such values should be regarded with extreme caution pending a satisfactory explanation of their occurrences. These "high" salinities have been retained in the tabular output but have been flagged by a double asterisk (**); arbitrarily, they have been utilized in the computations of the running means but *not* in those of the monthly means.

(c) At some of the program's shorestations in the Strait of Georgia, there can exist periods throughout which the recorded daily *salinity* values (and therefore the associated running means) are relatively low--often appreciably less than $20^{o}/oo$. Such values can be present at any time. However, they occur by far the most frequently during the months June through August--at which time they presumably result primarily from the marked freshening of the surface waters by runoff from the Fraser River. In 1981, low values were noted at Active Pass (especially), Departure Bay and Entrance Island. However, the salinity range common to all the other reporting sites ($20^{o}/oo$ to $34^{o}/oo$) has been retained in these three instances as well. This has been achieved by "displacing" running-mean values of $20^{o}/oo$ or less to the uppermost level of the graph; for these values the $34^{o}/oo$ level becomes in effect the $20^{o}/oo$ level, the $32^{o}/oo$ level the $18^{o}/oo$ level, and so on. As an example, the running-mean minimum that occurred at the end of May 1981 at Entrance Island (page 123) is in this representation seen to have a "graphical" value of about 18.8. The value actually calculated for the minimum was 18.73.

Brief mention may be made of some recent efforts at analysis (as opposed to "annual" tabulations) of the B.C. shorestation data obtained up to the end of 1976. A preliminary study (Webster and Farmer, 1976) examined data from three of the stations on the outer coast--Langara Island, Kains Island and Amphitrite Point. The primary purpose was the development of techniques for the presentation of important features of the data--such as long- and short-term variations at each station, and the possible relationships between the data from different stations. The techniques applied were simple annual and monthly averaging, and the relatively modern technique of spectral analysis. The same authors later extended these analytical techniques to a further fourteen stations (Webster and Farmer, 1977).

A third publication (Associated Engineering Services Ltd., 1977) deals with the general efficiency of the present shorestation sampling program, especially in the light of financial constraints involved. Sampling errors, especially those inherent in salinity determination by hydrometry, are exhaustively discussed. Central to the study was a questionnaire--forwarded to all present and potential users of the data--seeking to clarify such information as the time scales of interest and the required accuracy of the data. Responses to this questionnaire, and the sampling accuracies determined, were utilized to prepare several options (further versions of the sampling program). These options, each of different sampling intensities and/or instrumentation mixes, and cost, are presented for consideration by the users.

ACKNOWLEDGEMENTS

The sea-sampling program at British Columbia shore stations owes its success primarily to the dedication of the many observers who are taking, or have taken, part in the obtaining of data. These observations have maintained a remarkable continuity of effort, often in the face of extremely hazardous sea and weather conditions. The several vital contributions of MOT to the program are gratefully acknowledged: the provision of the voluntary services of the lightkeepers as observers, as well as the excellent assistance received from the District Managers and Staffs of the Marine Transportation Division in Victoria and Prince Rupert, and from its Radio Branch, which transmits the numerous messages involved in the program. The services of the meteorological staff at Cape St. James have been made available to the program through the kind permission of the Regional Director of the Pacific Region of AES. Shorestation observers at all MOT or AES stations with the exception of Cape Beale, receive payment from Ocean and Aquatic Sciences, DFO, for their work on behalf of the program. The observer at Cape Beale is paid by Bamfield. Data from Departure Bay and West Van are obtained by staff of those establishments. Thanks are due to the Director at Bamfield, Dr. R.E. Foreman, for permission to publish the Cape Beale data included in this report, and to Miss Sabina Leader for her efforts in making these data available. The computations were carried out by the Data Processing and Analysis Section of MEDS, under the direction of Mr. J. Nasr. This report was typed by Judy Pitcher.

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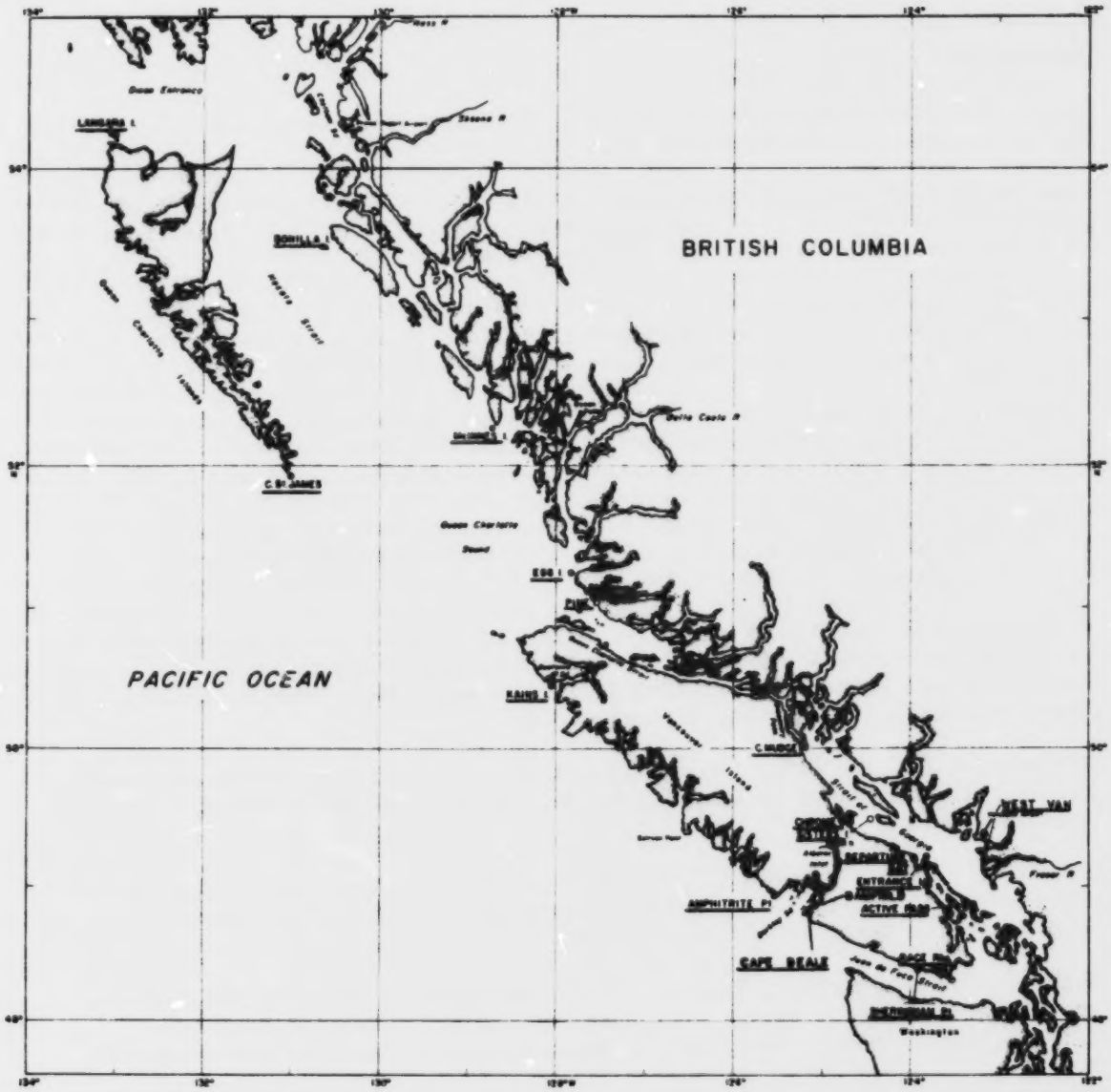


Figure 1. Location of B.C. shore stations (underlined) making daily oceanographic observations (1981) reported in this publication.

Table 1. B.C. shore stations providing the oceanographic data reported in this publication: general locations, and names of observers.

STATION	LOCATION	OBSERVER(S)
Outside Coast		
Langara Island	Dixon Entrance, south side	J.E. Redhead (Mrs.)
Bonilla Island	Hecate Strait, north	J. Beaudet L. Beaudet (Mrs.)
Cape St. James	Queen Charlotte Islands, south end	B. Robilliard R. MacDonald H. Ewen D. Veale
McInnes Island	Milbanke Sound entrance, north side	K. Coldwell (Mrs.)
Egg Island	Smith Sound, southern entrance	S.G. Westhaver R.E. Akerstrom G. Doyle
Pine Island	Queen Charlotte Strait, western entrance	A. Bablitz K. Brunn D. Fraser
Kains Island	Quatsino Sound entrance, north side	R.W. Moe I.R. Crocker
Amphitrite Point	Barkley Sound, western entrance	C. Slater (Mrs.)
Cape Beale	Barkley Sound, eastern entrance	A.D. Thomson S. Bonde (Ms.)
Bamfield	Barkley Sound, near eastern entrance	No Data, 1981
Sheringham Point	Juan de Fuca Strait, northern shore	E. Bruton (Mrs.)
Race Rocks	Juan de Fuca Strait, eastern end	F.B. Anderson (Mrs.) T.D. Holdaway

Table 1 Continued

STATION	LOCATION	OBSERVER(S)
Strait of Georgia		
Cape Mudge	Strait of Georgia, northern entrance	M. Nelson (Mrs.) D. Earl K. Nelson
Chrome Island	Strait of Georgia, off central western shore	M.V. Stewart (Mrs.) J. Etzkorn (Mrs.)
Sisters Island	Strait of Georgia, central	D.J. McNeil W. Milne R.J. Grunert C. Restall
Departure Bay	Strait of Georgia, central western shore	A.J. Dodimead A. Ballantyne (Mrs.)
Entrance Island	Strait of Georgia, off central western shore	E. Cehak (Mrs.)
West Vancouver	Strait of Georgia, central eastern shore	A. Lamb P. Edgell J. Lowe
Active Pass	Strait of Georgia, southwestern shore	J.E. Ruck

Table 2. Monthly- and annual-mean temperatures (°C)--1981

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Langara I.	7.9	7.6	8.0	8.1	9.9	12.0	12.9	13.3	13.8	11.1	9.3	7.2	10.1
Bonilla I.	8.1	7.7	8.3	8.7	10.3	12.4	12.9	12.9	13.5	11.5	9.8	8.2	10.4
Cape St. James	8.8	8.8	8.7	8.7	9.6	10.8	12.9	14.3	12.5	11.0	10.0	9.2	10.5
McInnes I.	7.8	7.6	8.2	8.4	10.0	12.0	12.5	13.4	13.9	11.4	9.8	8.4	10.3
Egg I.	8.5	8.1	8.5	8.7	10.6	11.8	13.0	13.3	11.8	11.1	9.6	8.6	10.3
Pine I.	8.6	8.1	8.5	8.5	9.1	9.5	10.0	10.4	10.6	10.2	9.7	8.5	9.3
Kains I.	9.5	8.9	9.2	9.7	10.8	12.7	13.2	13.0	14.3	11.5	10.3	8.9	11.0
Amphitrite Pt.	9.6	9.0	9.7	10.0	11.4	12.5	13.4	13.8	13.3	12.5	11.2	9.2	11.3
Cape Beale	9.0	8.5	9.3	9.8	11.2	12.1	12.4	12.2	11.6	11.6	10.9	8.9	10.6
Bamfield	No Data, 1981												
Sheringham Pt.	8.9	8.7	9.0	9.0	9.6	11.0	11.4	12.1	11.1	10.8	10.0	8.8	10.0
Race Rocks	8.3	8.4	8.9	9.2	9.5	9.9	10.3	10.6	10.2	9.7	9.4	8.6	9.4
Cape Mudge	8.0	7.7	8.2	8.9	10.9	13.5	13.6	14.0	13.5	11.0	9.7	7.9	10.6
Chrome I.	7.4	7.4	8.1	9.0	11.1	12.8	16.9	17.2	14.2	12.0	10.5	8.8	11.3
Sisters I.	7.4	7.5	8.3	9.3	12.3	14.1	17.3	18.0	15.0	11.2	9.8	7.9	11.5
Departure Bay	+7.4	+7.2	++8.9	++9.8	—	+13.7	+17.8	+17.9	+13.9	+11.3	+9.4	++7.6	11.3
Entrance I.	7.5	7.5	8.3	9.2	12.2	13.0	17.5	17.5	14.2	11.1	9.7	8.2	11.4
West Vancouver	7.9	7.1	8.8	8.8	12.1	14.5	16.8	17.3	14.7	10.4	9.0	7.3	11.3
Active Pass	7.5	7.7	8.7	9.8	11.4	12.8	16.3	15.6	13.2	11.0	9.8	8.1	11.0

Note: - Signifies no data obtained.

\+ Signifies months in which 11 to 20 daily values of temperature were recorded.

++ Signifies months in which 1 to 10 daily values of temperature were recorded.

Table 3. Monthly- and annual-mean temperatures (^{o}F)--1981

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Langara I.	46.2	45.7	46.4	46.6	49.8	53.6	55.2	55.9	56.8	52.0	48.7	45.0	50.2
Bonilla I.	46.6	45.9	46.9	47.7	50.5	54.3	55.2	55.2	56.3	52.7	49.6	46.8	50.7
Cape St. James	47.8	47.8	47.7	47.7	49.3	51.4	55.2	57.7	54.5	51.8	50.0	48.6	50.9
McInnes I.	46.0	45.7	46.8	47.1	50.0	53.6	54.5	56.1	57.0	52.5	49.6	47.1	50.5
Egg I.	47.3	46.6	47.3	47.7	51.1	53.2	55.4	55.9	53.2	52.0	49.3	47.5	50.5
Pine I.	47.5	46.6	47.3	47.3	48.4	49.1	50.0	50.7	51.1	50.4	49.5	47.3	48.7
Kains I.	49.1	48.0	48.6	49.5	51.4	54.9	55.8	55.4	57.7	52.7	50.5	48.0	51.8
Amphitrite Pt.	49.3	48.2	49.5	50.0	52.5	54.5	56.1	56.8	55.9	54.5	52.2	48.6	52.3
Cape Beale	48.2	47.3	48.7	49.6	52.2	53.8	54.3	54.0	52.9	52.9	51.6	48.0	51.1
Bamfield	No Data, 1981												
Sheringham Pt.	48.0	47.7	48.2	48.2	49.3	51.8	52.5	53.8	52.0	51.4	50.0	47.8	50.0
Race Rocks	46.9	47.1	48.0	48.6	49.1	49.8	50.5	51.1	50.4	49.5	48.9	47.5	48.9
Cape Mudge	46.4	45.9	46.8	48.0	51.6	56.3	56.5	57.2	56.3	51.8	49.5	46.2	51.1
Chrome I.	45.3	45.3	46.6	48.2	52.0	55.0	62.4	63.0	57.6	53.6	50.9	47.8	52.3
Sisters I.	45.3	45.5	46.9	48.7	54.1	57.4	63.1	64.4	59.0	52.2	49.6	46.2	52.7
Departure Bay	+45.3	+45.0++	48.0++	49.6	—	+56.7	+64.0	+64.2	+57.0	+52.3	+48.9++	45.7	52.3
Entrance I.	45.5	45.5	46.9	48.6	54.0	55.4	63.5	63.5	57.6	52.0	49.5	46.8	52.5
West Vancouver	46.2	44.8	47.8	47.8	53.8	58.1	62.2	63.1	58.5	50.7	48.2	45.1	52.3
Active Pass	45.5	45.7	47.7	49.6	52.5	55.0	61.3	60.1	55.8	51.8	49.6	46.6	51.8

Note: - Signifies no data obtained.

\+ Signifies months in which 11 to 20 daily values of temperature were recorded.

++ Signifies months in which 1 to 10 daily values of temperature were recorded.

Table 4. Monthly- and annual-mean salinities (^{o}/oo)--1981

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Langara I.	31.9	32.0	32.0	32.0	32.1	31.9	31.8	32.1	31.8	31.8	31.8	31.7	31.9
Bonilla I.	31.0	30.9	30.8	30.8	30.6	30.8	31.1	30.8	30.9	31.2	30.7	30.4	30.8
McInnes I.	29.3	29.5	29.8	30.0	29.7	29.8	30.3	30.4	29.9	29.5	29.1	30.1	29.8
Egg I.	30.7	30.6	30.9	30.6	29.5	29.2	29.0	30.8	31.5	31.3	31.4	31.7	30.6
Pine I.	31.1	30.8	31.3	31.6	32.0	32.0	32.1	31.9	31.8	31.8	31.4	31.3	31.6
Kains I.	27.8	28.2	28.5	28.6	29.0	29.7	30.6	31.5	30.7	29.0	27.4	28.8	29.2
Amphitrite Pt.	28.2	28.5	28.6	28.8	29.4	29.4	30.6	30.4	29.9	29.0	27.8	28.1	29.1
Cape Beale	28.9	29.3	29.2	30.1	30.0	30.0	30.6	31.4	31.3	29.3	28.5	28.3	29.7
Bamfield	No Data, 1981												
Sheringham Pt.	30.5	30.5	30.8	31.6	31.9	32.0	31.3	30.8	31.4	31.1	30.9	30.8	31.1
Race Rocks	31.2	31.4	31.2	31.6	31.9	31.9	32.2	32.3	32.3	32.0	31.6	31.2	31.7
Cape Mudge	28.3	28.2	28.6	28.9	28.8	27.1	28.6	28.7	28.5	28.7	28.4	28.1	28.4
Chrome I.	27.0	27.6	27.9	28.3	28.1	26.5	26.0	26.9	28.2	28.4	28.2	27.7	27.6
Sisters I.	26.3	27.7	27.9	28.3	27.3	22.9	25.6	26.2	27.4	27.8	27.9	27.4	26.9
Departure Bay	+25.38	+25.59	26.71	++27.90	—	+23.18	+23.64	+24.84	+27.65	+26.69	+24.68	++26.21	25.68
Entrance I.	25.9	27.7	28.0	28.2	26.0	25.0	23.1	25.3	27.2	27.3	26.7	27.3	26.5
Active Pass	23.7	26.4	26.3	27.2	23.9	25.1	21.4	24.2	26.6	26.9	26.4	27.1	25.4

Note: - Signifies no data obtained.

\+ Signifies months in which 11 to 20 daily values of temperature were recorded.

++ Signifies months in which 1 to 10 daily values of temperature were recorded.

Tabulations of Daily Sea-surface Temperature and Salinity

1981

TEMP: Temperature (^{o}C)

SAL: Salinity (^{o}/oo)

LANGARA ISLAND 54 15 19 N 133 03 30 W

	JANUARY		FEBRUARY		MARCH	198
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	7.4	32.1	7.8	31.9	7.2	31.8
2	7.6	32.1	7.2	31.9	7.7	31.9
3	8.2	31.9	7.7	31.9	7.2	32.0
4	8.0	32.1	7.3	31.9	7.2	32.0
5	7.9	32.1	7.3	31.9	6.8	32.0
6	8.2	32.1	7.5	32.1	6.9	32.1
7	8.1	31.9	7.7	32.3	8.1	32.4
8	7.8	31.9	7.8	32.1	7.9	32.0
9	7.9	32.1	8.1	31.9	8.2	32.0
10	8.6	31.9	8.7	32.0	8.3	32.1
11	8.4	32.1	7.7	32.0	8.8	32.4
12	8.1	32.0	7.7	31.9	7.9	32.1
13	8.4	32.1	7.8	32.3	7.8	31.9
14	8.8	32.0	7.8	32.1	8.0	32.1
15	8.7	32.1	7.8	32.1	7.9	32.0
16 *	8.5 *	32.1	7.7	32.0	7.9	32.0
17	8.2	32.1	7.8	32.1	7.8	31.9
18	8.2	32.1	7.8	32.0	7.9	31.9
19	8.3	32.1	7.8	31.9	7.9	32.0
20	8.2	31.6	7.8	32.1	8.4	31.9
21	8.4	32.0	8.2	31.9	8.8	32.0
22	7.9	32.0	7.2	32.1	8.7	32.0
23	7.4	31.8	7.6	32.3	8.7	32.1
24	8.3	32.0	7.3	32.3	8.4	31.9
25	8.0	31.9	7.8	32.1	8.9	31.9
26	7.8	31.9	7.7	32.0	8.9	31.9
27	7.2	31.8	7.7	32.0	8.5	31.5
28	7.2	31.8	7.2	32.0	8.0	31.5
29	7.2	31.8			8.1	31.5
30	6.0	31.6			8.0	31.9
31	7.2	31.1			7.7	32.0
MEANS	7.9	31.9	7.6	32.0	8.0	32.0
OBSVNS.	30	30	28	28	31	31
MAXIMUM	8.8	32.1	8.2	32.3	8.9	32.4
MINIMUM	6.0	31.1	6.1	31.9	6.8	31.5
STD.DEV.	.58	.22	.41	.13	.56	.20

LANGARA ISLAND 54 15 19 N 133 03 30 W

	APRIL		MAY		JUNE		1981
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL	
1	7.7	32.1	8.5	31.9	10.6	32.0	
2	7.5	32.1	8.7	32.1	10.4	31.8	
3	7.7	32.7	8.6	31.9	10.9	32.1	
4	7.3	31.8	8.9	32.0	12.1	32.0	
5	7.2	32.3	9.1	32.3	10.1	32.0	
6	8.1	32.3	9.4	32.1	10.6	32.0	
7	7.9	32.1	10.0	32.1	11.0	32.0	
8	7.9	32.1	9.9	32.1	12.1	31.6	
9	7.7	32.0	9.4	32.0	11.9	32.1	
10	7.3	32.3	10.4	32.3	12.3	32.0	
11	7.0	32.1	10.2	32.1	11.5	31.8	
12	6.0	32.0	9.9	32.1	* 11.6	* 31.9	
13	6.2	32.1	9.4	32.3	11.7	32.0	
14	8.2	31.6	9.2	31.9	12.3	32.3	
15	7.8	31.8	10.0	32.3	11.2	32.0	
16	7.9	31.6	9.8	32.1	11.4	32.1	
17	7.9	31.6	10.0	32.1	12.1	32.0	
18	7.7	32.0	10.6	32.0	12.1	31.9	
19	8.9	31.8	10.1	32.0	11.8	31.8	
20	8.8	31.9	9.8	32.3	12.3	31.4	
21	8.8	32.0	10.4	32.0	12.6	31.4	
22	8.7	31.9	10.6	32.3	13.3	31.6	
23	8.6	32.0	10.6	32.3	14.2	31.0	
24	9.1	31.9	10.4	32.1	13.3	31.5	
25	9.2	32.0	11.0	32.0	13.7	31.4	
26	8.7	32.1	* 10.6	* 32.0	13.2	31.6	
27	8.9	32.0	10.1	32.1	12.1	32.4	
28	9.4	31.9	10.2	32.0	* 11.9	* 32.2	
29	8.6	31.9	10.0	32.3	11.6	32.0	
30	9.1	32.0	11.9	32.1	12.8	32.8	
31			10.6	32.0			
MEANS	8.1	32.0	9.9	32.1	12.0	31.9	
OBSVNS.	30	30	30	30	28	28	
MAXIMUM	9.4	32.7	11.9	32.3	14.2	32.8	
MINIMUM	6.0	31.6	8.5	31.9	10.1	31.0	
STD.DEV.	.85	.23	.75	.13	1.01	.36	

LANGARA ISLAND 54 15 19 N 133 03 30 W

	JULY		AUGUST		SEPTEMBER 1981	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	11•8	32•4	12•3	32•1	13•2	32•1
2	11•8	32•3	14•2	31•8	12•8	32•0
3	12•7	32•1	13•9	31•6	13•7	32•5
4	11•8	32•1	12•5	32•3	13•1	32•0
5	13•4	32•3	13•8	31•9	13•2	32•4
6	13•2	32•3	14•9	32•3	16•3	32•0
7	12•9	32•1	15•2	31•9	14•9	31•4
8	13•7	32•5	15•0	31•6	14•6	31•6
9	14•1	32•4	15•3	32•0	14•4	31•6
10	13•1	32•4	13•7	32•4	14•9	31•6
11	13•2	32•3	13•8	32•5	14•9	31•6
12	12•8	31•9	13•8	32•0	15•0	31•6
13	12•8	31•9	13•2	32•1	14•5	31•9
14	13•8	31•6	13•1	32•0	13•9	31•6
15	13•3	31•1	13•5	32•7	13•6	31•0
16	12•8	31•5	11•7	32•7	14•1	31•5
17	13•0	31•6	12•6	31•9	13•4	31•8
18	12•3	31•9	13•4	32•7	14•3	31•8
19	13•7	31•9	13•2	32•1	14•6	31•9
20	* 13•7	* 31•6	11•5	32•3	14•3	32•0
21	13•7	31•2	13•3	32•1	14•0	31•5
22	13•2	31•8	13•2	31•5	13•4	31•9
23	12•9	31•8	13•3	31•9	13•6	31•9
24	12•1	31•5	13•9	31•5	13•2	31•8
25	12•8	31•1	12•2	32•1	13•2	31•6
26	13•3	31•4	12•9	31•8	12•2	31•9
27	13•4	31•4	12•8	31•9	11•9	31•9
28	13•1	31•4	12•9	32•1	12•3	31•8
29	12•6	31•2	12•6	32•4	* 12•0	* 31•7
30	12•3	32•0	12•7	32•4	11•6	31•5
31	12•1	32•0	12•2	32•1		
MEANS	12•9	31•8	13•3	32•1	13•8	31•8
OBSVNS•	30	30	31	31	29	29
MAXIMUM	14•1	32•5	15•3	32•7	16•3	32•5
MINIMUM	11•8	31•1	11•5	31•5	11•6	31•0
STD•DEV•	•62	•43	•96	•33	1•05	•30

LANGARA ISLAND 54 15 19 N 133 03 30 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER 1981 TEMP	DECEMBER 1981 SAL
1	11.7	31.9	10.0	31.8	* 8.4	* 31.5
2	12.0	31.9	9.9	31.9	8.0	31.4
3	12.4	31.9	9.7	31.8	7.9	31.9
4	12.2	32.0	10.8	31.8	8.2	31.9
5	12.0	32.0	9.8	31.8	7.5	32.0
6	11.7	32.0	9.4	31.5	7.3	32.3
7	12.8	32.0	9.1	31.4	6.9	32.0
8	11.1	32.1	9.9	31.8	6.6	32.4
9	10.9	32.0	10.6	31.8	7.0	32.0
10	11.1	31.4	10.0	31.6	7.2	31.8
11	11.2	31.2	10.6	31.5	7.0	31.6
12	11.2	32.0	8.9	31.8	7.2	31.8
13	11.3	32.0	9.2	31.9	7.2	31.9
14	11.3	31.2	9.3	32.0	7.3	32.0
15	11.6	31.8	9.0	31.8	7.6	31.9
16	11.3	31.6	8.9	31.8	* 7.7	* 31.9
17	11.2	31.9	9.0	31.8	* 7.8	* 32.0
18	11.2	31.6	8.8	31.6	7.9	32.0
19	10.7	31.6	8.9	31.8	7.6	31.7
20	10.7	31.6	8.9	31.5	7.2	31.4
21	10.2	32.1	8.8	31.6	7.1	31.2
22	11.0	31.9	8.8	31.5	7.4	31.9
23	11.1	31.5	8.3	31.9	7.6	31.6
24	11.4	31.4	8.4	31.9	7.2	31.2
25	10.7	31.9	8.9	32.4	7.3	31.4
26	10.0	32.1	8.8	32.1	7.2	31.5
27	9.9	32.0	8.9	31.9	7.1	31.6
28	9.8	31.9	9.3	31.6	* 6.4	* 31.6
29	9.8	32.0	8.2	31.9	5.7	31.5
30	10.2	31.9	8.7	31.6	6.3	31.8
31	9.8	31.9			5.4	31.5
MEANS	11.1	31.8	9.3	31.8	7.2	31.7
OBSVNS.	31	31	30	30	27	27
YRLY.MEANS					10.1	31.9
MAXIMUM	12.8	32.1	10.8	32.4	8.2	32.4
MINIMUM	9.8	31.2	8.2	31.4	5.4	31.2
STD.DEV.	.79	.26	.68	.21	.62	.30

BONILLA ISLAND 53 29 39 N 130 38 04 W

DATE	JANUARY TEMP	JANUARY SAL	FEBRUARY TEMP	FEBRUARY SAL	MARCH TEMP	MARCH SAL
1	6.9	30.8	7.1	31.2	7.6	30.8
2	7.9	31.2	7.6	31.1	7.9	30.8
3	8.3	31.4	7.4	31.2	7.7	30.8
4	8.3	31.2	7.7	31.4	7.7	31.0
5	8.0	31.4	7.3	31.0	7.8	30.7
6 *	8.0 *	31.2	7.6	30.7	7.2	30.8
7	8.1	31.0	7.7	31.0	7.6	30.8
8	7.8	31.2	7.8	31.0	7.5	30.6
9	8.3	31.4	7.3	31.1	7.9	30.4
10	8.2	31.2	7.1	31.0	8.8	31.0
11	8.3	31.0	7.2	30.8	8.7	31.4
12	8.4	30.3	7.6	30.6	9.0	30.8
13	8.6	30.6	7.9	31.1	8.6	30.6
14	8.4	30.8	8.1	30.8	7.8	30.8
15	8.4	31.2	7.9	31.0	8.1	30.7
16	8.6	31.4	* 7.8 *	30.9	8.6	30.6
17	8.4	31.2	7.7	30.7	8.5	30.6
18	8.6	31.0	7.4	30.8	8.6	31.1
19	8.8	30.8	7.9	30.6	* 8.9 *	31.1
20	8.6	31.0	7.9	30.8	9.3	31.2
21	8.4	30.8	8.3	30.8	9.3	31.4
22 *	8.4 *	30.9	7.9	31.0	9.1	31.1
23	8.3	31.0	7.9	30.8	8.6	31.2
24	8.1	30.7	7.8	30.8	8.2	30.6
25	7.8	31.0	8.2	31.1	* 8.6 *	30.6
26	7.7	30.8	7.8	31.1	9.0	30.7
27	7.7	30.4	8.1	30.8	8.5	30.3
28	7.9	30.6	7.2	31.1	9.3	30.7
29	7.3	30.7			8.8	30.6
30	6.8	31.0			8.2	30.4
31	6.8	31.2			8.2	30.8
MEANS	8.1	31.0	7.7	30.9	8.3	30.8
OBSVNS.	29	29	27	27	29	29
MAXIMUM	8.8	31.4	8.3	31.4	9.3	31.4
MINIMUM	6.8	30.3	7.1	30.6	7.2	30.3
STD.DEV.	.54	.30	.34	.20	.60	.28

BONILLA ISLAND 53 29 39 N 130 38 04 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	8.4	31.0	8.4	30.0	11.2	31.0
2	8.3	31.1	9.1	30.4	11.9	30.4
3	8.5	31.2	9.3	30.2	11.3	30.8
4	8.3	30.2	9.4	30.0	11.6	30.7
5	8.3	31.1	9.4	30.0	10.8	30.3
6	8.9	31.5	10.4	30.3	10.6	30.6
7	9.0	31.1	* 9.9	* 30.6	12.0	30.7
8	8.8	30.7	9.4	31.0	12.5	30.7
9	8.7	31.2	9.9	30.7	13.3	30.8
10	8.1	31.0	10.4	30.4	11.1	31.0
11	8.4	31.0	9.0	30.6	11.7	30.8
12	7.3	31.1	9.4	30.8	12.5	30.8
13	7.7	31.0	9.4	31.0	12.7	30.8
14	8.2	30.3	9.9	30.4	12.4	30.7
15	8.3	30.4	10.0	30.7	12.1	30.6
16	8.5	30.4	10.4	30.8	13.1	30.8
17	8.4	30.7	9.9	30.3	14.1	31.2
18	8.8	30.8	11.7	31.0	12.2	30.8
19	9.2	30.3	9.9	30.7	12.4	31.0
20	8.3	30.2	12.0	30.4	13.4	30.8
21	8.8	30.6	11.6	30.7	13.3	30.8
22	9.1	31.2	11.1	30.7	13.8	30.7
23	* 9.2	* 31.2	11.4	30.8	13.2	30.7
24	9.3	31.2	10.8	31.1	12.8	30.4
25	9.6	30.4	11.0	30.6	14.5	30.7
26	9.5	30.6	10.7	30.4	12.2	31.0
27	9.3	30.3	10.3	30.4	12.2	30.7
28	8.4	31.2	10.8	30.7	11.8	31.0
29	8.8	31.0	11.1	30.6	12.9	30.8
30	9.7	30.8	11.7	30.6	12.7	30.8
31			11.7	30.8		
MEANS	8.7	30.8	10.3	30.6	12.4	30.8
OBSVNS.	29	29	30	30	30	30
MAXIMUM	9.7	31.5	12.0	31.1	14.5	31.2
MINIMUM	7.3	30.2	8.4	30.0	10.6	30.3
STD.DEV.	.55	.37	.96	.30	.94	.19

1981

BONILLA ISLAND 53 29 39 N 130 38 04 W

DATE	JULY TEMP	JULY SAL	AUGUST TEMP	AUGUST SAL	SEPTEMBER 198 TEMP	SEPTEMBER 198 SAL
1	13.4	31.2	12.3	31.5	12.8	30.7
2	12.5	30.7	13.8	31.1	12.8	31.0
3	13.9	31.1	14.6	31.0	13.4	31.2
4	14.1	31.2	13.0	30.3	14.4	31.4
5	13.8	31.0	14.8	30.8	14.6	31.0
6	14.4	31.4	14.4	30.6	14.7	31.1
7	13.2	31.2	14.4	31.0	14.1	31.0
8	12.9	31.0	13.2	30.8	14.4	27.2
9	12.6	31.0	12.6	30.8	14.3	30.7
10	12.2	31.1	11.9	30.6	14.2	30.3
11	12.0	30.8	12.2	30.3	* 14.4	* 30.7
12	11.9	31.0	12.3	30.4	14.7	31.2
13	* 12.3	* 30.9	11.4	30.8	15.1	31.1
14	12.7	30.8	12.3	30.7	13.3	30.8
15	12.7	31.2	12.7	30.8	13.8	31.2
16	12.0	31.4	12.3	30.7	13.1	31.1
17	12.8	31.6	11.9	30.8	13.8	31.0
18	11.8	31.1	12.1	30.8	13.9	31.1
19	12.1	31.2	12.9	31.5	13.6	31.1
20	12.7	31.2	12.1	30.6	13.4	31.4
21	12.7	31.1	12.5	30.8	13.3	31.2
22	12.4	31.4	12.3	30.7	12.7	30.8
23	12.6	31.2	12.2	30.6	12.6	31.2
24	* 13.7	* 31.1	12.2	30.8	13.0	31.4
25	14.8	31.0	12.7	30.7	13.2	31.5
26	13.4	31.0	13.1	31.1	12.6	31.1
27	12.7	30.8	13.8	31.1	12.5	30.8
28	12.4	30.7	14.4	31.2	12.3	31.0
29	13.2	31.2	13.2	31.2	12.4	30.7
30	12.7	31.0	13.4	31.0	12.8	31.1
31	13.3	31.4	12.7	30.8		
MEANS	12.9	31.1	12.9	30.8	13.5	30.9
OBSVNS.	29	29	31	31	29	29
MAXIMUM	14.8	31.6	14.8	31.5	15.1	31.5
MINIMUM	11.8	30.7	11.4	30.3	12.3	27.2
STD.DEV.	.76	.22	.90	.29	.80	.76

BONILLA ISLAND 53 29 39 N 130 38 04 W

	OCTOBER		NOVEMBER		DECEMBER 1981	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	12.7	30.8	10.3	31.1	9.1	30.3
2	12.2	30.6	10.1	31.2	8.9	30.3
3	12.1	31.4	10.1	31.0	8.3	30.3
4	11.9	31.0	10.5	29.9	8.6	30.4
5	11.9	31.1	10.5	30.4	8.9	30.2
6	11.9	31.2	* 10.1	* 30.9	8.6	30.8
7	12.1	30.8	9.7	31.4	7.9	31.0
8	11.8	30.7	10.1	30.7	8.3	30.4
9	11.9	31.1	10.4	30.2	8.4	31.0
10	11.7	31.0	10.5	30.8	* 8.6	* 30.7
11	* 11.8	* 31.2	10.5	30.6	8.9	30.3
12	12.0	31.4	9.9	31.0	8.1	31.0
13	11.9	31.5	9.8	31.1	7.9	31.1
14	12.2	31.2	10.1	31.0	8.3	31.1
15	11.8	31.4	9.7	30.7	8.3	30.0
16	11.9	31.2	9.6	31.0	9.4	30.8
17	12.2	31.4	9.9	31.2	9.3	30.7
18	11.7	31.2	10.2	31.2	8.5	30.6
19	11.9	31.0	9.8	30.6	8.9	30.3
20	10.8	31.2	9.6	30.6	8.2	29.9
21	10.7	31.4	9.4	30.4	7.7	30.0
22	10.7	31.4	9.6	30.3	7.9	30.2
23	10.9	31.2	9.5	30.0	8.2	29.9
24	11.4	31.5	9.4	30.3	8.4	30.3
25	11.2	31.5	9.3	30.6	8.3	30.2
26	11.2	31.2	9.4	30.8	7.9	29.9
27	10.5	31.4	9.3	31.1	7.6	30.2
28	10.6	31.2	9.5	30.6	8.0	30.3
29	11.3	31.2	9.2	30.7	7.6	30.0
30	10.6	31.2	9.1	30.3	5.8	30.7
31	10.4	31.0			6.8	31.0
MEANS	11.5	31.2	9.8	30.7	8.2	30.4
OBSVNS.	30	30	29	29	30	30
YRLY.MEANS.....					10.4	30.8
MAXIMUM	12.7	31.5	10.5	31.4	9.4	31.1
MINIMUM	10.4	30.6	9.1	29.9	5.8	29.9
STD.DEV.	.62	.24	.43	.39	.72	.39

CAPE ST JAMES 51 56 18 N 131 00 50 W

DATE	JANUARY TEMP		SAL	FEBRUARY TEMP		SAL	MARCH TEMP		SAL
1	8.8	*		8.9	*		8.3	*	
2	8.8	*		9.1	*		8.5	*	
3	9.0	*		9.0	*		8.1	*	
4	9.0	*		9.2	*		8.3	*	
5	9.0	*		8.9	*		8.3	*	
6	8.9	*		8.8	*		8.6	*	
7	8.8	*		8.6	*		8.6	*	
8	8.8	*		9.0	*		8.9	*	
9	8.8	*		8.4	*		9.0	*	
10	8.8	*		8.8	*		9.0	*	
11	8.8	*		8.3	*		8.9	*	
12	8.8	*		8.8	*		8.7	*	
13	8.9	*		9.1	*		8.8	*	
14	8.8	*		8.9	*		8.8	*	
15	8.8	*		8.8	*		8.6	*	
16	9.0	*		8.8	*		8.4	*	
17	9.0	*		8.8	*		8.6	*	
18	9.2	*		8.8	*		8.6	*	
19	8.8	*		8.7	*		8.9	*	
20	9.1	*		8.9	*		8.8	*	
21	9.3	*		9.2	*		9.4	*	
22	9.0	*		8.8	*		9.1	*	
23	8.8	*		8.8	*		8.8	*	
24	8.8	*		8.6	*		8.8	*	
25	8.8	*		8.5	*		8.8	*	
26	8.5	*		8.8	*		9.1	*	
27	8.7	*		8.6	*		9.0	*	
28	8.3	*		8.6	*		8.7	*	
29	8.4	*					8.8	*	
30	8.3	*					8.6	*	
31	8.6	*					8.6	*	
MEANS	8.8		0.0	8.8		0.0	8.7		0.0
OBSVNS.	31		0	28		0	31		0
MAXIMUM	9.3		0.0	9.2		0.0	9.4		0.0
MINIMUM	8.3		0.0	8.3		0.0	8.1		0.0
STD.DEV.	.23		0.00	.22		0.00	.28		0.00

CAPE ST JAMES 51 56 18 N 131 00 50 W

DATE	APRIL TEMP		SAL	MAY TEMP		SAL	JUNE TEMP		SAL	1981
1	8.5	*		8.9	*		10.2	*		
2	8.4	*		8.6	*		10.4	*		
3	8.6	*		9.1	*		10.0	*		
4	8.8	*		10.0	*		10.1	*		
5	8.7	*		9.3	*		9.7	*		
6	8.8	*		9.4	*		10.3	*		
7	8.7	*		10.1	*		10.7	*		
8	8.6	*		9.2	*		11.0	*		
9	8.7	*		9.0	*		11.0	*		
10	8.6	*		8.9	*		11.2	*		
11	8.9	*		9.3	*		10.8	*		
12	8.9	*		9.3	*		11.3	*		
13	8.9	*		9.4	*		11.0	*		
14	8.5	*		9.4	*		10.7	*		
15	8.7	*		9.6	*		10.2	*		
16	8.4	*		9.3	*		10.4	*		
17	8.8	*		9.3	*		11.2	*		
18	8.8	*		9.5	*		10.8	*		
19	9.0	*		9.5	*		10.8	*		
20	8.9	*		9.6	*		11.0	*		
21	8.8	*		9.6	*		11.5	*		
22	9.1	*		10.0	*		10.9	*		
23	8.8	*		9.7	*		11.1	*		
24	8.8	*		10.0	*		11.0	*		
25	9.9	*		10.1	*		10.5	*		
26	9.1	*		10.4	*		10.7	*		
27	8.8	*		9.9	*		10.7	*		
28	8.7	*		10.0	*		11.1	*		
29	8.8	*		10.1	*		11.2	*		
30	9.0	*		10.2	*		11.1	*		
31				10.4	*					
MEANS	8.7		0.0	9.6		0.0	10.8		0.0	
OBSVNS.	30		0	31		0	30		0	
MAXIMUM	9.2		0.0	10.4		0.0	11.5		0.0	
MINIMUM	8.2		0.0	8.6		0.0	9.7		0.0	
STD.DEV.	.23		0.00	.46		0.00	.43		0.00	

CAPE ST JAMES 51 54 18 N 131 00 50 W

DATE	JULY TEMP		JULY SAL	AUGUST TEMP		AUGUST SAL	SEPTEMBER 198 TEMP		SEPTEMBER 198 SAL
1	10.8	*		13.6	*		12.3	*	
2	11.1	*		13.8	*		14.1	*	
3	11.3	*		13.6	*		13.3	*	
4	11.1	*		13.6	*		14.3	*	
5	11.2	*		13.6	*		14.1	*	
6	11.3	*		14.2	*		14.8	*	
7	11.6	*		13.7	*		14.4	*	
8	11.3	*		13.0	*		13.2	*	
9	11.2	*		14.3	*		11.9	*	
10	11.4	*		15.3	*		14.8	*	
11	12.2	*		15.6	*		11.8	*	
12	12.4	*		15.8	*		11.9	*	
13	12.6	*		15.7	*		12.7	*	
14	12.8	*		15.8	*		12.2	*	
15	13.4	*		15.3	*		12.1	*	
16	13.1	*		14.7	*		12.3	*	
17	13.3	*		14.3	*		11.9	*	
18	12.8	*		14.1	*		11.7	*	
19	12.8	*		14.4	*		12.1	*	
20	13.8	*		13.7	*		12.0	*	
21	14.4	*		12.9	*		11.9	*	
22	13.6	*		14.0	*		12.0	*	
23	15.1	*		13.5	*		11.9	*	
24	13.6	*		14.8	*		11.9	*	
25	13.8	*		15.2	*		11.7	*	
26	13.8	*		15.0	*		11.7	*	
27	14.4	*		14.6	*		11.8	*	
28	14.2	*		14.2	*		11.7	*	
29	14.9	*		14.2	*		11.8	*	
30	14.7	*		14.2	*		11.5	*	
31	14.9	*		13.3	*				
MEANS	12.9		0.0	14.3		0.0	12.5		0.0
OBSVNS.	31		0	31		0	30		0
MAXIMUM	15.1		0.0	15.8		0.0	14.8		0.0
MINIMUM	10.8		0.0	12.9		0.0	11.5		0.0
STD.DEV.	1.36		0.00	.82		0.00	1.05		0.00

CAPE ST JAMES 51 56 18 N 131 00 50 W

DATE	OCTOBER TEMP		SAL	NOVEMBER TEMP		SAL	DECEMBER 1981 TEMP		SAL
1	11.9	*		10.4	*		9.4	*	
2	11.5	*		10.8	*		9.4	*	
3	11.4	*		10.2	*		9.1	*	
4	11.8	*		10.5	*		9.3	*	
5	11.3	*		10.6	*		9.0	*	
6	10.7	*		10.4	*		9.1	*	
7	11.2	*		10.3	*		9.3	*	
8	10.6	*		10.6	*		9.3	*	
9	10.7	*		10.7	*		9.0	*	
10	10.4	*		10.6	*		8.6	*	
11	10.9	*		9.6	*		9.1	*	
12	11.1	*		9.9	*		9.1	*	
13	11.1	*		9.5	*		9.1	*	
14	11.0	*		9.3	*		9.6	*	
15	11.2	*		10.0	*		9.7	*	
16	11.4	*		10.0	*		9.6	*	
17	11.2	*		9.9	*		9.2	*	
18	10.5	*		10.2	*		9.3	*	
19	11.0	*		9.8	*		9.6	*	
20	11.1	*		10.0	*		9.1	*	
21	11.1	*		9.7	*		9.3	*	
22	10.8	*		9.7	*		9.2	*	
23	11.1	*		9.4	*		9.6	*	
24	11.3	*		9.6	*		9.2	*	
25	10.4	*		9.3	*		9.7	*	
26	10.8	*		9.1	*		9.3	*	
27	10.8	*		9.9	*		9.1	*	
28	10.4	*		10.0	*		9.0	*	
29	10.7	*		9.6	*		8.3	*	
30	11.1	*		10.0	*		8.1	*	
31	10.2	*					8.2	*	
MEANS	11.0		0.0	10.0		0.0	9.2		0.0
OBSVNS.	31		0	30		0	30		0
YRLY.MEANS.....							10.5		0.0
MAXIMUM	11.9		0.0	10.8		0.0	9.7		0.0
MINIMUM	10.2		0.0	9.1		0.0	8.1		0.0
STD.DEV.	.40		0.00	.46		0.00	.41		0.00

MCINNES ISLAND 52 15 48 N 128 43 10 W

DATE	JANUARY TEMP	JANUARY SAL	FEBRUARY TEMP	FEBRUARY SAL	MARCH TEMP	MARCH SAL
1	6.8	28.4	7.6	29.7	7.3	28.4
2	7.0	28.5	7.3	29.4	7.6	28.8
3	7.1	28.5	7.2	29.0	7.9	29.5
4	7.3	28.5	7.4	29.1	7.7	29.4
5	7.3	28.6	7.4	29.1	7.1	28.9
6	7.7	29.1	7.4	29.4	7.4	29.4
7	8.1	29.9	7.4	29.7	7.7	29.3
8	7.8	29.8	7.4	29.9	7.7	30.3
9	8.1	30.0	7.2	29.8	8.1	30.0
10	8.3	30.4	6.9	29.8	8.1	29.9
11	8.0	30.3	7.1	29.8	8.3	30.2
12	7.9	29.9	7.3	29.9	8.3	30.2
13	8.3	30.4	7.7	30.2	8.3	30.2
14	7.7	29.7	7.8	30.3	8.2	30.0
15	7.7	30.0	8.4	30.4	8.0	30.0
16	7.6	28.8	*	*	8.4	30.2
17	7.7	29.1	*	*	8.2	29.7
18	8.2	29.8	*	*	8.3	29.7
19	8.8	30.2	8.2	30.4	8.5	29.8
20	8.3	29.5	8.2	30.3	8.8	29.8
21	8.2	29.3	8.2	30.3	8.4	29.7
22	8.1	29.1	8.2	30.3	8.1	29.8
23	8.1	28.9	7.8	29.8	8.3	29.8
24	7.9	28.8	7.7	27.7	8.6	30.0
25	7.8	29.4	7.7	28.0	8.7	30.0
26	7.9	29.1	7.6	28.8	8.6	29.9
27	7.7	29.0	7.4	28.6	8.4	29.9
28	7.5	28.8	7.2	28.1	8.7	30.4
29	7.6	29.1			8.7	30.4
30	7.1	28.9			8.7	30.4
31	7.2	29.1			8.7	30.4
MEANS	7.8	29.3	7.6	29.5	8.2	29.8
OBSVNS.	31	31	25	25	31	31
MAXIMUM	8.8	30.4	8.4	30.4	8.8	30.4
MINIMUM	6.8	28.4	6.9	27.7	7.1	28.4
STD.DEV.	.45	.61	.40	.78	.45	.48

MCINNES ISLAND 52 15 48 N 128 43 10 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	8.8	30.2	9.0	30.8	11.8	29.7
2	8.7	29.9	8.8	30.2	11.6	29.7
3	8.6	29.7	8.9	30.2	11.0	30.2
4	8.6	29.8	8.9	30.4	11.0	30.8
5	8.4	30.4	8.8	29.1	10.9	30.8
6	8.2	30.3	8.9	29.1	10.9	30.8
7	8.2	30.3	9.2	29.3	11.2	30.4
8	8.2	30.3	9.2	29.4	11.1	29.8
9	8.2	30.4	8.9	29.7	12.1	29.9
10	8.0	30.0	8.8	30.4	12.7	29.7
11	8.0	30.0	9.2	29.1	12.8	29.4
12	7.9	30.0	9.4	29.5	12.9	29.1
13	7.9	29.5	* 6.9	* 29.7	*	*
14	7.9	29.8	* 9.7	* 29.8	*	*
15	8.1	30.3	9.9	30.0	*	*
16	8.3	30.2	9.8	29.8	11.8	30.4
17	8.3	29.7	10.1	29.5	11.6	30.3
18	8.4	29.1	10.6	29.4	11.7	30.3
19	8.4	29.1	10.3	29.4	11.9	30.4
20	8.6	29.9	10.1	29.4	12.1	29.9
21	8.4	30.6	10.1	29.3	12.1	29.3
22	8.4	30.6	9.9	30.3	12.3	28.4
23	8.4	30.2	10.0	29.5	12.6	28.5
24	8.4	30.2	10.9	29.4	12.8	28.8
25	8.7	30.2	10.8	29.9	13.2	29.0
26	8.9	29.7	10.7	30.2	13.2	29.3
27	8.7	29.9	11.3	30.2	13.2	29.8
28	8.6	29.9	11.4	29.7	12.3	29.5
29	* 8.7	* 30.2	11.9	29.1	12.0	29.7
30	* 8.8	* 30.5	11.7	29.7	11.4	30.2
31			11.1	30.4		
MEANS	8.4	30.0	10.0	29.7	12.0	29.8
OBSVNS.	28	28	29	29	27	27
MAXIMUM	8.9	30.6	11.9	30.8	13.2	30.8
MINIMUM	7.9	29.1	8.8	29.1	10.9	28.4
STD.DEV.	.29	.38	.97	.48	.74	.66

MCINNES ISLAND 52 15 48 N 128 43 10 W

	JULY		AUGUST		SEPTEMBER 1981	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	11•7	29•9	12•2	30•8	14•3	31•0
2	12•2	29•9	12•8	30•3	14•4	30•8
3	12•3	30•2	12•8	30•8	14•6	30•8
4	12•8	30•2	13•0	30•8	14•5	30•6
5	12•7	30•0	13•3	30•7	14•4	30•2
6	12•4	30•6	13•9	30•7	14•3	30•0
7	12•5	30•6	14•3	30•8	14•3	29•8
8	12•7	30•3	14•4	30•7	14•1	29•9
9	13•1	30•2	14•4	30•7	14•6	30•3
10	13•1	30•0	14•7	30•6	13•7	31•1
11	13•1	30•0	14•0	30•7	13.4	31•1
12	13•1	30•0	13•8	31•0	14•2	30•3
13	13•1	29•9	13•8	30•7	14•2	30•6
14	13•1	29•9	13•1	30•3	14•2	30•3
15	13•1	29•8	12•9	30•3	14•3	30•3
16	13•1	29•9	12•7	31•0	14•3	30•0
17	13•0	30•3	13•6	30•3	14•8	29•3
18	12•8	30•3	13•3	31•0	*	*
19	12•7	30•4	13•2	30•6	*	*
20	12•6	30•4	13•1	30•3	*	*
21	12•2	30•4	12•8	30•3	13•7	29•8
22	11•8	30•7	12•0	30•7	13•7	29•9
23	11•7	30•7	12•3	30•4	13•7	30•3
24	11•8	30•4	13•2	30•3	13•8	28•5
25	12•0	30•6	13•3	30•7	13•3	28•5
26	12•0	30•6	13•6	31•1	13•3	28•5
27	12•0	30•7	14•1	28•2	13•2	28•5
28	12•0	30•7	13•4	28•4	13•1	28•5
29	12•0	30•7	13•3	28•5	13•1	29•4
30	12•0	30•7	13•8	29•4	13•0	29•9
31	12•0	30•8	14•1	30•2		
MEANS	12•5	30•3	13•4	30•4	13•9	29•9
OBSVNS•	31	31	31	31	27	27
MAXIMUM	13•1	30•8	14•7	31•1	14•8	31•1
MINIMUM	11•7	29•8	12•0	28•2	13•0	28•5
STD•DEV•	•51	•32	•67	•74	•53	•83

MCINNES ISLAND 52 15 48 N 128 43 10 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER 1981 TEMP	DECEMBER 1981 SAL
1	13.0	30.4	10.4	30.3	9.3	30.2
2	12.8	30.4	10.6	30.4	9.6	30.8
3	12.3	30.7	10.8	30.4	9.4	30.8
4	12.2	29.8	10.8	30.4	9.3	30.7
5	11.9	28.5	10.9	31.0	8.9	30.6
6	11.8	29.5	10.6	30.2	8.8	30.0
7	11.4	28.8	10.0	29.3	7.9	28.8
8	11.6	28.9	10.1	29.5	8.0	28.8
9	11.3	29.0	10.3	30.4	8.0	28.9
10	11.1	28.8	* 10.3	* 30.2	8.0	29.3
11	11.0	27.4	* 10.2	* 30.0	8.0	29.3
12	11.0	28.0	10.1	29.8	7.8	29.1
13	11.1	28.5	9.9	29.3	8.2	29.7
14	11.0	28.5	9.4	28.0	8.7	30.7
15	11.1	28.9	9.4	27.3	8.6	30.7
16	11.6	29.7	9.4	15.6	8.6	30.3
17	11.3	29.5	9.3	27.3	8.4	30.3
18	11.8	30.2	9.1	27.6	* 8.5	* 30.4
19	11.6	30.3	9.4	28.6	* 8.6	* 30.5
20	11.3	30.0	9.9	30.0	8.6	30.7
21	11.0	29.5	10.0	30.3	8.9	30.3
22	11.0	29.5	10.1	30.8	8.7	30.3
23	10.9	29.4	10.0	30.8	8.7	30.6
24	11.1	28.9	9.8	30.6	8.8	31.1
25	11.0	29.1	* 9.3	* 29.9	8.7	30.7
26	10.8	30.2	* 8.9	* 29.3	8.4	30.4
27	10.2	30.0	8.4	28.6	8.3	30.4
28	10.3	30.4	9.0	29.8	7.9	30.3
29	11.2	31.0	9.8	30.7	7.6	30.0
30	11.1	30.4	9.1	29.8	7.3	29.9
31	10.9	30.2			7.3	28.8
MEANS	11.4	29.5	9.8	29.1	8.4	30.1
OBSVNS.	31	31	26	26	29	29
YRLY.MEANS					10.3	29.8
MAXIMUM	13.0	31.0	10.9	31.0	9.6	31.1
MINIMUM	10.2	27.4	8.4	15.6	7.3	28.8
STD.DEV.	.60	.85	.63	2.96	.60	.70

EGG ISLAND 51 15 06 N 127 49 53 W

DATE	JANUARY TEMP	JANUARY SAL	FEBRUARY TEMP	FEBRUARY SAL	MARCH TEMP	MARCH SAL
1	8.1	30.3	8.0	30.3	8.3	30.3
2	8.2	30.4	8.1	30.3	8.3	30.3
3	8.3	30.4	8.2	30.3	8.1	30.3
4	8.4	30.4	8.1	30.4	7.9	30.0
5	8.4	30.3	8.0	30.8	8.1	30.4
6	8.4	30.3	7.9	30.4	8.3	30.8
7	8.3	30.3	7.9	30.7	8.6	31.1
8	8.3	30.3	8.2	30.7	8.7	31.0
9	8.6	30.4	7.8	30.6	8.6	31.1
10	8.7	30.7	7.8	30.8	8.6	30.7
11	8.6	30.4	7.7	31.1	8.6	31.2
12	8.5	30.8	8.1	30.6	8.8	31.4
13	* 8.5	* 30.8	8.3	30.6	8.8	31.1
14	8.5	30.8	8.3	30.4	8.6	31.6
15	8.6	31.0	8.3	30.6	8.4	31.0
16	8.7	30.7	8.3	30.8	8.4	31.1
17	8.8	31.1	8.3	31.0	8.4	31.0
18	8.9	30.8	8.3	31.0	8.8	30.7
19	8.9	31.0	* 8.3	* 30.9	8.8	31.1
20	8.8	31.0	8.3	30.8	8.7	30.7
21	8.9	31.0	8.3	30.8	8.9	31.0
22	8.9	30.8	8.1	30.4	8.7	31.2
23	8.8	31.1	8.2	30.4	8.6	30.8
24	8.5	30.8	8.3	30.2	8.8	31.1
25	8.6	30.6	8.3	30.7	8.8	31.1
26	8.6	31.0	8.3	30.6	8.8	30.8
27	8.8	31.2	8.3	30.4	8.8	30.7
28	8.4	31.0	8.2	30.4	8.4	30.7
29	8.3	30.8			8.5	30.7
30	7.8	30.6			8.3	30.7
31	8.1	30.4			8.3	30.7
MEANS	8.5	30.7	8.1	30.6	8.5	30.9
OBSVNS.	30	30	2	2	31	31
MAXIMUM	8.9	31.2	8.3	31.1	8.9	31.6
MINIMUM	7.8	30.3	7.7	30.2	7.9	30.0
STD.DEV.	.28	.30	.19	.24	.25	.35

EGG ISLAND 51 15 06 N 127 49 53 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	8•4	30•6	8•9	30•7	12•9	27•8
2	8•5	31•0	9•1	30•8	11•7	29•0
3	8•5	30•4	9•0	31•1	11•7	28•9
4	8•3	30•8	9•3	30•7	10•9	30•2
5	8•5	30•4	9•8	30•7	10•7	29•9
6	8•5	31•0	9•6	30•8	10•7	30•3
7	8•4	30•6	10•3	30•6	12•3	28•0
8	8•5	30•7	9•4	31•2	13•3	29•3
9	8•8	30•3	9•3	31•1	12•2	26•8
10	8•3	30•4	10•5	30•0	12•2	27•8
11	8•5	30•2	10•7	28•5	* 12•1	* 27•4
12	8•8	29•1	10•9	27•4	12•1	26•9
13	8•3	30•0	10•0	29•0	12•2	28•9
14	8•4	31•2	10•0	28•9	12•2	28•8
15	8•8	30•8	9•4	30•6	11•7	28•9
16	8•8	31•0	9•4	30•7	11•4	29•9
17	9•0	30•7	10•0	30•2	10•9	30•2
18	9•3	30•4	11•3	29•8	10•9	30•4
19	9•2	30•2	10•6	29•7	11•2	29•5
20	8•8	31•0	11•2	28•2	11•1	30•0
21	8•7	30•4	11•4	28•2	11•5	30•8
22	8•9	30•7	11•6	28•4	12•2	29•3
23	8•9	30•8	11•8	29•1	13•6	28•4
24	8•9	30•4	11•0	29•3	12•7	27•2
25	8•9	30•6	10•6	29•8	12•1	28•5
26	9•3	30•4	10•7	29•9	11•3	29•4
27	8•8	30•6	12•6	27•8	11•7	29•3
28	* 9•0	* 30•6	13•2	27•8	11•1	30•0
29	9•3	30•7	11•1	29•1	12•1	30•7
30	9•2	30•7	11•7	27•1	12•2	30•3
31			12•8	25•8		
MEANS	8•7	30•6	10•6	29•5	11•8	29•2
OBSVNS.	29	29	31	31	29	29
MAXIMUM	9•3	31•2	13•2	31•2	13•6	30•8
MINIMUM	8•3	29•1	8•9	25•8	10•7	26•8
STD.DEV.	•32	•40	1•15	1•38	•75	1•12

1981

EGG ISLAND 51 15 06 N 127 49 53 W

DATE	JULY TEMP	JULY SAL	AUGUST TEMP	AUGUST SAL	SEPTEMBER 19 TEMP	SEPTEMBER 19 SAL
1	12•9	29•7	13•9	30•3	10•6	31•6
2	12•9	29•8	14•7	29•9	10•9	31•6
3	13•2	28•9	15•9	29•5	11•3	31•4
4	12•2	29•8	14•9	30•4	11•0	31•5
5	11•8	29•8	15•6	29•8	10•2	31•8
6	12•8	28•5	13•7	30•3	11•1	31•8
7	11•4	29•7	14•4	30•0	11•2	31•8
8	12•6	29•0	14•4	29•9	13•2	32•1
9	12•7	25•4	14•3	30•2	12•0	31•9
10	11•1	29•4	13•4	30•7	10•7	31•9
11	13•3	26•9	13•7	30•4	* 11•1	* 31•6
12	13•4	27•4	14•3	31•1	11•6	31•2
13	13•7	28•8	14•6	31•1	11•3	31•4
14	14•2	27•8	14•4	31•1	12•1	31•4
15	14•0	27•8	12•0	31•2	12•2	31•5
16	13•7	28•5	12•4	31•0	13•0	31•2
17	13•3	29•1	12•0	31•5	13•0	30•8
18	13•8	29•1	12•8	* 33•0	12•1	30•3
19	13•7	29•8	13•0	* 33•0	12•3	31•8
20	13•5	29•8	14•4	32•7	12•3	31•2
21	13•4	29•1	12•9	31•6	11•8	31•2
22	12•3	30•8	12•8	30•8	11•6	31•2
23	12•9	30•4	13•7	31•6	12•2	31•5
24	14•8	29•4	12•7	31•6	11•6	31•2
25	13•0	29•8	12•9	31•1	11•6	30•4
26	12•2	29•5	13•2	30•0	12•3	31•8
27	12•6	29•3	11•9	31•1	12•2	31•8
28	12•5	28•8	10•7	29•5	11•8	32•1
29	13•1	27•1	11•1	31•5	11•7	31•5
30	13•5	28•8	11•3	31•1	12•3	31•5
31	12•2	30•6	10•8	31•5		
MEANS	13•0	29•0	13•3	30•8	11•8	31•5
OBSVNS•	31	31	31	29	29	29
MAXIMUM	14•8	30•8	15•9	32•7	13•2	32•1
MINIMUM	11•1	25•4	10•7	29•5	10•2	30•3
STD•DEV•	•81	1•14	1•36	•76	•72	•43

EGG ISLAND 51 15 06 N 127 49 53 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER TEMP	DECEMBER SAL
1	12.7	32.0	9.7	31.6	9.3	31.6
2	12.5	32.5	9.4	31.6	9.0	32.3
3	12.0	31.9	9.7	31.0	8.9	32.0
4	12.2	32.1	9.5	32.1	9.0	31.2
5	11.9	32.3	9.9	31.8	9.1	31.4
6	12.0	31.9	9.7	31.4	8.8	31.5
7	11.7	32.0	9.5	31.1	8.5	31.4
8	11.2	31.6	9.5	31.6	8.8	32.5
9	10.6	31.4	9.7	31.0	9.1	32.1
10	10.1	31.4	9.7	31.2	9.2	31.4
11	10.4	30.8	9.9	31.2	8.9	31.4
12	10.6	31.4	10.1	31.6	8.5	31.9
13	10.6	31.6	9.8	31.2	8.7	31.8
14	10.6	31.4	9.9	31.5	9.0	31.5
15	10.7	31.2	9.9	31.6	8.7	31.4
16	11.0	31.5	9.8	31.5	8.6	31.6
17	11.2	30.6	9.4	31.0	8.7	31.8
18	11.7	30.4	9.3	31.1	8.9	31.9
19	11.2	31.1	9.4	31.1	* 8.9	* 31.8
20	11.1	31.4	9.7	32.3	8.8	31.6
21	10.7	31.5	9.8	31.6	8.3	31.9
22	10.6	30.4	9.6	31.2	8.3	31.2
23	10.0	29.3	9.6	31.4	8.5	31.5
24	11.2	31.1	* 9.5	* 31.4	8.4	31.9
25	11.6	31.6	9.4	31.4	8.5	32.1
26	11.1	31.4	9.3	31.2	8.4	31.4
27	10.6	30.7	9.1	31.2	8.3	31.6
28	10.7	30.6	8.9	31.6	8.2	31.5
29	10.6	31.4	9.0	31.1	7.8	31.8
30	10.2	31.5	8.8	31.4	7.8	31.4
31	10.6	31.4			7.8	32.5
MEANS	11.1	31.3	9.6	31.4	8.6	31.7
OBSVNS.	31	31	29	29	30	30
YRLY.MEANS					10.3	30.6
MAXIMUM	12.7	32.5	10.1	32.3	9.3	32.5
MINIMUM	10.0	29.3	8.8	31.0	7.8	31.2
STD.DEV.	.71	.65	.32	.32	.40	.35

PINE ISLAND 50 58 33 N 127 43 35 W

	JANUARY		FEBRUARY		MARCH	19
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	8.9	31.5	8.2	30.8	8.2	31.0
2	8.4	31.2	7.9	30.3	8.2	30.8
3	8.2	30.8	7.9	30.2	8.4	31.1
4	8.0	30.6	8.1	30.7	8.4	30.7
5	8.1	31.2	8.2	30.8	8.3	31.0
6	8.2	31.1	8.2	30.8	8.4	31.0
7	8.2	30.7	8.2	30.8	8.4	31.4
8	8.2	31.0	8.0	30.8	8.4	31.1
9	8.1	30.7	8.2	30.7	8.4	31.2
10	8.6	30.7	7.9	31.0	8.5	31.5
11	8.7	31.1	7.9	30.8	8.5	31.2
12	8.8	31.1	7.9	30.7	8.6	31.4
13	8.8	31.2	8.0	31.0	8.4	31.4
14	8.8	31.1	8.0	30.8	8.4	31.1
15	9.0	31.4	8.1	30.7	8.3	30.8
16	8.9	31.2	8.2	30.8	8.2	31.5
17	8.8	31.1	8.2	30.7	8.2	31.1
18	8.9	30.8	8.3	30.8	8.6	31.2
19	9.0	30.8	* 8.3	* 30.9	8.6	31.5
20	9.0	31.0	8.4	31.0	8.6	31.2
21	9.0	31.4	8.2	31.1	8.5	31.5
22	9.0	31.8	8.2	31.0	8.5	31.5
23	8.4	31.5	8.2	30.8	8.5	32.0
24	8.3	30.8	8.2	30.8	8.5	31.6
25	8.8	31.4	8.2	31.0	8.3	31.5
26	8.5	31.1	8.2	31.0	8.4	31.6
27	8.6	30.8	8.1	31.1	8.7	31.4
28	8.6	31.1	8.2	30.8	8.8	31.2
29	8.5	31.1			8.8	31.5
30	8.6	30.8			* 8.8	* 31.4
31	8.6	31.0			8.8	31.2
MEANS	8.6	31.1	8.1	30.8	8.5	31.3
OBSVNS.	31	31	27	27	30	30
MAXIMUM	9.0	31.8	8.4	31.1	8.8	32.0
MINIMUM	8.0	30.6	7.9	30.2	8.2	30.7
STD.DEV.	.31	.28	.14	.20	.17	.2

PINE ISLAND 50 58 33 N 127 43 35 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	8.6	31.2	9.0	31.9	9.1	31.9
2	8.4	31.2	9.3	32.1	9.1	32.1
3	8.5	31.8	9.2	31.9	9.0	32.1
4	8.4	31.5	9.3	31.9	9.0	31.9
5	8.5	31.4	9.3	32.1	9.0	31.9
6	8.3	31.6	9.4	31.8	9.0	31.9
7	8.4	31.4	9.4	31.5	9.1	32.1
8	8.4	31.4	9.4	31.9	9.2	32.1
9	8.5	31.8	9.4	31.9	9.0	31.9
10	8.2	31.5	9.0	32.1	9.1	31.9
11	8.2	31.5	9.0	32.1	9.1	31.6
12	8.2	31.5	9.2	31.9	9.8	31.8
13	8.2	31.2	8.9	32.3	9.8	32.0
14	8.3	31.2	8.9	32.1	9.7	32.4
15	8.4	31.8	8.8	31.8	9.8	32.5
16	8.4	31.6	8.8	31.9	9.5	32.7
17	8.8	32.0	8.8	31.6	9.5	32.7
18	8.8	31.8	9.1	31.9	9.6	32.9
19	8.8	31.8	8.8	32.7	9.6	* 33.2
20	8.6	31.5	8.8	31.9	9.7	32.1
21	8.6	31.9	8.8	* 33.2	9.7	31.6
22	8.6	31.6	9.4	* 33.4	9.7	31.6
23	8.5	31.9	9.2	* 33.0	9.8	31.4
24	8.4	31.9	8.9	32.1	9.8	31.6
25	8.6	31.6	8.8	32.0	9.8	31.6
26	9.1	32.0	9.0	* 33.2	9.9	31.9
27	* 9.1	* 31.8	9.0	32.9	9.9	31.9
28	9.1	31.6	9.0	31.6	9.8	31.4
29	9.0	31.9	9.1	31.4	9.7	32.0
30	9.1	31.8	9.0	31.6	9.8	32.0
31			9.1	31.9		
MEANS	8.5	31.6	9.1	32.0	9.5	32.0
OBSVNS.	29	29	31	27	30	29
MAXIMUM	9.1	32.0	9.4	32.9	9.9	32.9
MINIMUM	8.2	31.2	8.8	31.4	9.0	31.4
STD.DEV.	.27	.25	.22	.32	.34	.37

PINE ISLAND 50 58 33 N 127 43 35 W

DATE	JULY TEMP	JULY SAL	AUGUST TEMP	AUGUST SAL	SEPTEMBER 19 TEMP	SEPTEMBER 19 SAL
1	9.8	32.0	10.1	32.4	9.8	32.0
2	9.7	31.9	10.6	32.0	9.7	32.0
3	9.8	31.6	11.1	31.5	10.0	31.9
4	9.8	31.9	11.1	32.4	10.1	31.9
5	9.8	32.1	* 10.5	* 32.5	10.0	31.9
6	9.8	32.1	9.8	32.7	10.2	31.9
7	9.6	32.1	10.4	32.1	9.9	32.0
8	9.8	32.0	11.0	31.4	10.4	32.0
9	9.8	32.0	11.0	31.9	10.1	31.8
10	9.8	31.9	10.4	32.1	12.0	31.9
11	10.0	32.0	11.1	31.1	12.2	32.0
12	10.1	31.8	10.0	32.0	11.5	32.0
13	10.1	32.0	9.9	31.9	11.2	32.0
14	10.2	32.3	11.0	32.0	10.5	31.8
15	9.8	32.4	11.2	32.0	10.8	31.9
16	10.0	31.6	11.1	32.1	10.1	32.0
17	10.0	31.6	11.1	32.0	10.2	31.9
18	10.0	32.0	10.8	31.5	10.2	31.5
19	9.9	32.0	10.8	32.0	11.0	31.4
20	10.0	32.1	11.0	32.3	10.4	31.8
21	10.0	32.3	9.7	31.8	10.4	31.5
22	9.7	32.8	9.7	32.1	10.6	31.5
23	9.7	32.4	9.7	32.5	10.7	31.5
24	10.0	31.9	9.7	32.0	10.4	31.9
25	11.0	31.6	10.1	31.2	10.4	31.5
26	10.8	32.0	10.0	31.2	10.4	32.0
27	10.0	31.6	9.7	31.9	10.6	31.9
28	9.8	32.5	9.5	32.1	10.6	31.6
29	9.8	32.3	9.8	32.0	10.4	31.4
30	9.8	32.5	9.9	32.1	12.2	31.4
31	10.2	32.4	9.4	31.8		
MEANS	10.0	32.1	10.4	31.9	10.6	31.8
OBSVNS.	31	31	30	30	30	30
MAXIMUM	11.0	32.8	11.2	32.7	12.2	32.0
MINIMUM	9.6	31.6	9.4	31.1	9.7	31.4
STD.DEV.	.29	.30	.61	.38	.66	.2

PINE ISLAND 50 58 33 N 127 43 35 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER 1981 TEMP	DECEMBER 1981 SAL
1	12.0	31.5	10.1	31.6	9.0	31.5
2	11.4	31.5	10.3	31.0	9.2	31.2
3	11.2	31.6	10.5	31.8	* 9.1	* 31.1
4	10.9	31.9	10.1	31.6	9.0	31.1
5	* 10.6	* 31.8	10.1	31.6	8.7	31.1
6	10.2	31.6	10.0	31.6	7.7	31.2
7	10.0	31.9	9.9	31.6	9.0	31.4
8	11.0	32.0	9.6	31.2	9.0	30.8
9	11.3	31.1	9.5	31.4	8.9	31.4
10	11.4	32.0	9.7	31.4	9.0	31.2
11	11.3	31.1	10.0	31.5	8.9	31.4
12	11.2	31.9	9.4	31.5	8.9	31.5
13	10.2	32.1	9.8	31.6	8.0	31.1
14	10.2	32.1	10.0	31.4	8.5	31.4
15	10.3	32.1	9.8	31.5	8.9	31.1
16	10.3	32.0	9.5	31.2	8.8	31.2
17	10.2	32.0	9.7	31.4	8.8	31.5
18	9.7	31.8	*	*	8.7	31.1
19	9.6	31.9	*	*	8.5	31.4
20	9.7	31.6	*	*	8.2	31.8
21	9.8	31.6	9.5	31.2	8.4	31.4
22	9.7	31.8	9.5	31.1	8.0	31.6
23	9.7	31.8	9.5	31.4	8.2	31.9
24	9.7	31.8	9.5	31.1	8.3	31.5
25	9.8	31.9	9.4	31.5	8.2	31.4
26	9.6	31.9	9.4	31.6	8.4	31.2
27	9.6	31.6	9.3	31.2	8.2	31.5
28	8.9	31.6	9.2	31.5	8.0	31.5
29	8.9	31.6	9.0	31.4	8.0	31.4
30	8.9	31.9	* 9.0	* 31.4	7.8	31.5
31	8.9	31.6			7.9	31.2
MEANS	10.2	31.8	9.7	31.4	8.5	31.3
OBSVNS.	30	30	26	26	30	30
YRLY.MEANS					9.3	31.6
MAXIMUM	12.0	32.1	10.5	31.8	9.2	31.9
MINIMUM	8.9	31.1	9.0	31.0	7.7	30.8
STD.DEV.	.85	.26	.36	.20	.44	.23

KAINS ISLAND 50 26 39 N 128 01 47 W

DATE	JANUARY TEMP	JANUARY SAL	FEBRUARY TEMP	FEBRUARY SAL	MARCH TEMP	MARCH SAL	19
1	9.3	26.1	8.8	28.0	9.4	26.3	
2	9.1	26.7	8.7	28.1	9.3	26.7	
3	9.6	26.3	8.8	28.0	8.7	26.9	
4	9.7	27.1	8.5	28.5	8.7	27.2	
5	9.4	27.1	8.6	28.2	8.3	27.8	
6	9.8	28.4	8.7	28.5	8.8	28.5	
7	9.5	28.4	8.6	28.5	8.6	28.2	
8	9.4	28.1	9.1	28.8	8.9	28.6	
9	9.8	28.6	8.5	29.1	9.2	29.0	
10	9.5	28.4	9.0	29.5	9.0	28.9	
11	9.6	28.4	8.7	29.1	8.8	28.2	
12	9.4	28.5	8.3	29.3	9.0	28.5	
13	9.7	28.1	8.5	29.3	9.1	28.9	
14	9.7	28.4	8.9	29.9	8.7	29.1	
15	9.4	28.9	9.2	29.8	9.4	29.3	
16	9.5	28.4	9.1	28.8	8.7	28.8	
17	9.7	28.4	9.2	29.3	9.0	28.9	
18	9.8	28.9	9.2	29.3	8.8	28.5	
19	9.8	28.4	9.2	29.5	9.2	29.0	
20	9.8	25.8	8.9	28.5	9.7	29.1	
21	10.1	28.2	9.1	27.2	9.5	29.3	
22	10.1	27.7	8.8	25.9	9.4	28.5	
23	9.6	26.3	8.7	25.6	9.7	28.6	
24	9.7	28.2	9.3	25.9	9.6	29.0	
25	9.4	27.2	9.1	26.9	9.7	29.1	
26	9.2	27.7	9.4	26.7	9.7	28.4	
27	9.0	28.2	9.4	26.7	9.6	28.1	
28	9.2	28.0	9.1	26.7	9.5	28.5	
29	8.9	27.7			9.7	28.9	
30	8.3	27.1			9.7	29.1	
31	8.6	27.4			9.5	29.0	
MEANS	9.5	27.8	8.9	28.2	9.2	28.5	
OBSVNS.	31	31	28	28	31	31	
MAXIMUM	10.1	28.9	9.4	29.9	9.7	29.3	
MINIMUM	8.3	25.8	8.3	25.6	8.3	26.3	
STD.DEV.	.39	.85	.30	1.27	.41	.7	

KAINS ISLAND 50 24 39 N 128 01 47 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL	1981
1	9.6	29.1	10.0	29.7	11.9	29.8	
2	9.6	28.8	10.6	28.2	11.9	29.5	
3	9.9	28.5	10.6	27.1	11.7	30.2	
4	9.8	28.4	9.7	26.0	12.2	30.0	
5	9.8	28.6	10.0	28.9	11.9	30.0	
6	9.7	28.8	10.7	29.0	12.3	29.9	
7	9.3	29.0	10.6	28.8	12.5	30.6	
8	9.5	29.0	10.0	28.6	12.9	29.9	
9	9.4	28.6	10.4	28.4	12.8	29.3	
10	8.8	28.5	10.6	28.8	12.6	29.4	
11	9.0	27.8	10.8	28.8	12.8	29.5	
12	9.1	27.6	10.3	29.1	12.8	30.2	
13	9.3	27.7	10.8	28.8	13.4	30.0	
14	9.4	28.0	10.6	29.0	13.2	30.2	
15	9.4	28.4	10.6	28.8	12.8	29.9	
16	9.6	28.2	10.6	29.0	12.3	30.0	
17	9.7	28.4	10.0	29.1	12.7	29.8	
18	9.8	28.5	11.3	28.9	12.3	29.5	
19	10.0	28.8	11.4	29.4	12.7	30.0	
20	9.8	29.1	10.8	29.3	12.6	29.8	
21	9.7	29.5	11.1	29.5	12.5	29.5	
22	9.7	29.7	11.4	29.4	13.2	29.7	
23	9.6	29.4	10.8	29.5	13.8	29.0	
24	9.8	29.1	11.4	29.7	14.0	29.1	
25	10.0	28.8	11.4	29.9	13.9	29.1	
26	10.2	28.2	11.3	29.7	13.9	29.3	
27	10.0	28.0	12.2	29.5	13.8	29.7	
28	10.2	28.1	11.9	29.5	11.6	29.4	
29	10.2	28.4	11.1	30.0	11.8	29.8	
30	10.8	28.5	11.1	30.0	12.4	29.8	
31			12.2	29.5			
MEANS	9.7	28.6	10.8	29.0	12.7	29.7	
OBSVNS.	30	30	31	31	30	30	
MAXIMUM	10.5	29.7	12.2	30.0	14.0	30.6	
MINIMUM	8.8	27.6	9.7	26.0	11.6	29.0	
STD.DEV.	.37	.52	.63	.81	.69	.37	

KAINS ISLAND 50 24 39 N 128 01 47 W

	JULY		AUGUST		SEPTEMBER 19	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	12•8	29•7	12•0	31•9	14•3	30•6
2	11•4	29•0	12•7	31•5	13•8	31•5
3	13•0	29•9	12•3	31•4	14•3	29•7
4	13•2	30•2	12•7	31•4	14•4	30•3
5	12•2	30•2	13•7	31•4	14•4	29•7
6	12•4	30•0	14•7	31•1	14•7	29•7
7	12•7	30•0	15•3	31•6	14•5	30•0
8	12•4	29•8	13•9	31•5	14•0	30•4
9	13•9	30•2	14•1	31•5	14•2	30•4
10	12•7	30•0	14•0	31•2	15•0	30•7
11	12•4	30•3	13•8	31•5	15•2	30•7
12	13•2	30•2	13•0	31•5	15•3	30•6
13	13•3	30•3	12•1	31•4	14•4	31•0
14	13•5	30•3	12•7	31•4	14•1	31•1
15	13•0	30•7	11•9	32•1	13•6	31•4
16	13•1	30•2	13•1	31•8	13•6	31•2
17	13•4	30•3	12•4	31•9	13•8	31•1
18	13•1	30•4	11•9	32•3	14•9	31•0
19	14•6	31•1	12•2	32•1	14•6	31•1
20	13•9	31•0	12•3	32•1	14•0	31•1
21	13•0	31•0	12•2	31•9	14•4	31•1
22	13•1	31•0	12•4	31•9	14•4	30•8
23	13•0	31•1	12•3	31•9	14•2	30•8
24	13•9	31•1	12•2	31•5	14•4	31•0
25	13•7	31•2	12•9	31•5	14•2	30•8
26	13•8	31•1	12•8	31•4	14•0	30•4
27	13•3	31•1	13•0	31•2	14•4	30•8
28	13•5	31•2	13•2	31•0	14•1	30•2
29	14•5	32•0	14•0	30•8	14•1	30•4
30	13•2	31•6	13•7	30•8	13•8	30•4
31	13•5	31•9	13•2	30•7		
MEANS	13•2	30•6	13•0	31•5	14•3	30•7
OBSVNS•	31	31	31	31	30	30
MAXIMUM	14•6	32•0	15•3	32•3	15•3	31•5
MINIMUM	11•4	29•0	11•9	30•7	13•6	29•7
STD•DEV•	•64	•68	•87	•40	•42	•4

KAINS ISLAND 50 26 39 N 128 01 47 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER TEMP	DECEMBER SAL
1	13.8	28.9	10.8	28.2	10.1	29.4
2	13.1	26.9	11.3	28.4	9.4	27.8
3	13.2	27.7	10.8	26.8	9.3	28.0
4	13.2	29.0	10.6	25.9	9.6	28.1
5	12.8	29.9	10.6	26.4	9.5	28.1
6	9.7	28.1	10.9	26.8	9.2	27.7
7	9.8	28.1	10.8	26.8	8.9	28.2
8	9.8	28.4	10.7	26.7	8.6	28.2
9	9.4	27.8	11.1	28.2	8.7	28.6
10	9.3	26.9	11.0	28.2	9.0	28.8
11	11.7	27.6	11.2	28.0	8.8	28.2
12	11.8	27.4	10.9	27.7	8.3	29.1
13	12.2	29.3	10.4	27.6	8.4	29.1
14	12.3	29.7	10.6	28.2	9.7	30.2
15	12.4	29.4	10.2	28.0	9.5	29.7
16	12.2	29.3	10.3	28.4	9.1	29.4
17	11.8	29.8	10.4	28.4	9.0	29.7
18	12.2	29.9	10.2	28.0	9.4	29.9
19	12.0	30.0	10.3	28.2	9.7	29.7
20	11.4	29.9	10.2	27.7	9.6	29.1
21	11.2	29.5	10.1	27.8	8.9	28.5
22	11.4	29.9	10.0	26.5	8.6	28.5
23	11.8	29.5	8.9	25.1	8.6	28.8
24	11.8	29.9	9.2	24.8	8.7	28.2
25	11.6	29.9	9.0	26.7	8.7	28.5
26	11.1	30.0	9.7	27.3	8.7	28.8
27	10.9	29.8	9.5	27.4	8.4	28.4
28	10.9	30.0	9.9	28.4	8.1	28.9
29	10.6	29.3	9.5	28.1	7.9	28.1
30	10.8	28.8	9.7	28.4	7.8	28.6
31	11.1	28.5			7.3	29.0
MEANS	11.5	29.0	10.3	27.4	8.9	28.8
OBSVNS.	31	31	30	30	31	31
YRLY.MEANS					11.0	29.2
MAXIMUM	13.8	30.0	11.3	28.4	10.1	30.2
MINIMUM	9.3	26.9	8.9	24.8	7.3	27.7
STD.DEV.	1.15	.99	.64	.99	.63	.65

AMPHITRITE POINT 48 55 16 N 125 32 17 W

	JANUARY		FEBRUARY		MARCH	19
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	9.8	25.5	8.4	27.4	9.5	26.8
2	9.9	25.9	9.4	29.4	9.4	26.3
3	10.0	27.2	8.9	27.8	9.4	25.2
4	9.7	24.4	8.8	28.1	9.3	28.9
5	10.0	27.1	8.6	27.6	8.8	26.5
6	10.1	29.0	8.7	28.1	9.1	27.1
7	9.7	28.5	8.6	28.6	9.6	28.2
8	9.6	28.1	8.3	28.2	9.7	28.4
9	9.9	30.0	8.8	28.9	9.7	28.6
10	9.8	29.1	8.6	29.0	9.7	28.6
11	9.4	28.1	7.8	29.0	9.6	29.7
12	9.7	27.8	8.4	29.9	9.7	28.8
13	9.6	28.6	8.4	28.2	9.6	28.6
14	9.5	28.1	8.6	30.3	* 9.5	* 29.0
15	9.4	28.8	8.8	28.9	9.4	29.5
16	9.3	28.9	9.1	29.8	9.2	29.7
17	9.4	29.1	9.4	29.9	9.4	29.5
18	9.6	28.4	9.2	29.8	9.4	28.9
19	9.6	29.8	* 9.3	* 29.6	9.9	28.9
20	9.7	29.3	9.4	29.4	9.9	29.1
21	9.9	30.0	9.7	28.2	10.0	29.0
22	9.8	29.0	9.6	28.1	10.1	29.5
23	10.1	29.3	9.7	28.2	10.2	29.8
24	9.6	28.9	9.4	27.4	10.1	29.3
25	9.2	26.7	9.7	27.8	10.2	29.3
26	* 9.4	* 27.1	9.6	27.2	10.3	29.9
27	9.6	27.6	9.6	27.4	10.3	29.7
28	9.4	28.4	9.5	27.8	10.2	27.8
29	8.9	28.4			10.0	28.0
30	8.7	28.1			9.6	29.7
31	8.8	27.7			9.5	28.2
MEANS	9.6	28.2	9.0	28.5	9.7	28.6
OBSVNS.	30	30	27	27	30	30
MAXIMUM	10.1	30.0	9.7	30.3	10.3	29.9
MINIMUM	8.7	24.4	7.8	27.2	8.8	25.2
STD.DEV.	.35	1.29	.53	.91	.38	1.18

AMPHITRITE POINT 48 55 16 N 125 32 17 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	9.8	28.9	10.9	28.8	12.1	29.9
2	9.9	28.6	10.8	28.6	12.2	29.7
3	9.8	29.1	10.6	28.4	12.2	29.5
4	10.1	28.8	10.8	26.3	12.0	28.9
5	10.0	28.2	11.3	27.4	12.8	28.1
6	10.1	28.4	11.5	26.9	12.9	29.4
7	10.1	29.0	10.6	29.8	12.7	30.0
8	10.2	29.3	10.6	30.2	12.9	29.3
9	10.1	29.0	10.5	30.4	13.2	29.4
10	9.8	30.0	10.7	29.9	12.9	28.6
11	9.8	28.4	11.0	30.3	12.6	28.8
12	9.6	27.7	10.7	30.6	13.2	28.5
13	9.3	27.7	10.8	30.3	12.9	29.1
14	9.3	27.1	10.3	30.8	12.2	30.0
15	9.6	28.5	10.7	30.7	11.7	30.0
16	9.7	28.8	10.8	30.6	12.1	29.4
17	9.7	29.1	11.4	29.4	11.9	28.9
18	9.9	28.8	11.6	29.3	11.9	30.4
19	10.1	29.5	12.1	29.4	12.1	29.8
20	10.2	29.9	11.9	30.0	11.9	30.0
21	10.3	29.9	11.8	30.2	12.1	28.6
22	10.5	30.2	12.7	29.4	12.3	29.3
23	10.1	29.3	12.4	29.3	12.4	29.4
24	9.9	29.1	12.1	26.1	12.6	30.0
25	10.0	29.7	12.5	29.5	12.3	30.4
26	10.2	28.9	12.2	29.7	12.3	29.7
27	10.4	28.2	12.0	30.4	13.8	28.8
28	10.3	28.8	11.9	30.2	13.2	29.3
29	10.4	27.1	12.8	29.4	13.1	28.9
30	10.2	28.0	12.8	30.0	11.9	30.0
31			12.1	30.0		
MEANS	10.0	28.8	11.4	29.4	12.5	29.4
OBSVNS.	30	30	31	31	30	30
MAXIMUM	10.5	30.2	12.8	30.8	13.8	30.4
MINIMUM	9.3	27.1	10.3	26.1	11.7	28.1
STD.DEV.	.30	.79	.78	1.24	.51	.59

1981

AMPHITRITE POINT 48 55 16 N 125 32 17 W

DATE	JULY TEMP	JULY SAL	AUGUST TEMP	AUGUST SAL	SEPTEMBER 19 TEMP	SEPTEMBER 19 SAL
1	12•7	30•3	13•2	30•8	12•9	30•0
2	12•9	30•4	12•3	30•6	13•7	30•2
3	12•0	30•8	12•1	30•4	13•1	30•6
4	12•8	30•2	12•9	30•6	14•1	30•2
5	11•4	31•1	14•1	31•0	14•0	30•3
6	11•3	30•8	14•3	30•8	14•9	30•7
7	11•2	30•7	13•2	30•3	15•1	30•3
8	11•6	31•1	13•6	30•2	14•6	29•9
9	11•5	31•0	15•5	31•4	14•6	29•8
10	11•7	30•7	15•6	30•3	13•6	30•6
11	12•2	30•2	14•4	29•8	13•4	30•3
12	13•0	29•8	14•3	30•3	13•3	30•4
13	11•8	31•0	13•4	30•2	13•4	30•4
14	12•2	31•1	13•4	30•0	13•8	30•6
15	13•3	30•6	13•2	30•8	14•0	30•4
16	13•5	30•0	13•9	29•7	14•3	30•3
17	14•6	30•3	14•6	30•2	14•0	30•3
18	14•7	30•2	14•3	30•7	13•1	29•0
19	14•9	30•4	13•9	30•6	13•2	29•3
20	14•8	30•4	14•7	30•4	* 12•4	* 29•3
21	14•8	30•6	14•8	30•7	11•7	29•4
22	15•1	30•8	13•6	30•4	11•9	29•4
23	15•2	30•3	15•4	29•9	12•0	28•0
24	15•1	30•2	14•6	30•3	12•2	29•0
25	14•7	30•6	14•0	30•3	12•5	29•3
26	14•9	30•6	13•0	30•7	12•4	29•5
27	14•6	30•7	13•5	30•6	12•3	29•9
28	14•4	30•4	13•2	30•0	12•6	30•7
29	13•3	30•7	13•3	30•3	12•5	29•5
30	14•5	30•7	13•5	30•2	12•6	29•7
31	13•7	31•0	13•0	29•9		
MEANS	13•4	30•6	13•8	30•4	13•3	29•9
OBSVNS•	31	31	31	31	29	29
MAXIMUM	15•2	31•1	15•6	31•4	15•1	30•7
MINIMUM	11•2	29•8	12•1	29•7	11•7	28•0
STD•DEV•	1•39	•34	•87	•37	•94	•6

AMPHITRITE POINT 48 55 16 N 125 32 17 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER 1981 TEMP	DECEMBER 1981 SAL
1	12.9	29.8	12.1	26.9	9.6	27.3
2	12.5	29.4	12.1	27.6	9.8	26.9
3	12.7	28.1	11.9	29.7	10.1	27.6
4	12.9	27.1	11.9	29.3	9.4	28.4
5	13.0	28.1	11.3	25.4	* 9.6	* 28.1
6	13.1	29.8	11.2	27.7	9.9	27.7
7	12.7	29.7	11.7	28.0	9.7	28.4
8	12.3	29.9	11.9	27.8	9.4	28.6
9	12.3	29.4	11.6	26.7	9.6	28.1
10	12.2	28.5	11.8	26.9	10.0	28.6
11	12.3	28.1	* 12.0	* 27.9	9.4	28.0
12	12.4	27.3	12.2	28.9	8.3	26.4
13	12.5	26.9	12.0	28.5	8.6	26.8
14	12.6	27.2	11.7	27.8	10.2	29.9
15	12.9	28.4	11.8	28.6	9.4	28.1
16	12.9	28.5	11.8	29.3	8.9	27.4
17	12.8	28.6	11.1	27.4	9.5	28.2
18	13.0	28.9	11.1	27.8	9.6	27.8
19	12.9	29.4	* 11.1	* 28.5	* 9.6	* 28.8
20	12.8	29.5	11.2	29.3	9.7	29.8
21	11.7	29.1	11.4	29.8	9.6	29.5
22	12.1	29.8	11.4	30.3	8.8	28.2
23	12.2	29.8	10.7	27.6	8.8	28.0
24	12.3	29.8	10.6	26.7	9.3	28.5
25	12.4	30.0	9.9	25.2	9.2	29.8
26	12.3	30.7	10.5	27.8	8.8	28.0
27	12.5	29.8	10.1	27.2	8.9	28.5
28	12.4	30.0	9.1	25.9	8.7	28.4
29	11.9	29.3	9.9	27.4	8.2	26.5
30	11.8	28.8	9.0	25.8	8.6	28.6
31	11.4	30.4			7.8	27.4
MEANS	12.5	29.0	11.2	27.8	9.2	28.1
OBSVNS.	31	31	28	28	29	29
YRLY.MEANS					11.3	29.1
MAXIMUM	13.1	30.7	12.2	30.3	10.2	29.9
MINIMUM	11.4	26.9	9.0	25.2	7.8	26.4
STD.DEV.	.42	1.01	.89	1.33	.60	.91

CAPE BEALE 48 47 12 N 125 12 53 W

	JANUARY		FEBRUARY		MARCH	198
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	9.0	27.2	8.5	28.8	9.0	28.3
2	9.0	27.2	8.4	29.4	9.0	28.3
3	8.9	27.8	8.0	29.9	9.0	27.8
4	9.5	28.3	8.0	29.9	8.0	28.3
5	9.2	29.4	8.0	29.9	8.0	30.5
6	9.2	28.8	8.0	29.9	8.7	28.8
7	9.2	28.8	8.0	30.5	8.7	29.9
8	9.2	28.8	8.0	30.5	9.0	29.9
9	9.3	28.8	7.8	30.5	9.0	29.9
10	9.0	29.4	7.0	30.5	9.2	31.5
11	9.0	29.4	6.8	29.9	10.2	29.4
12	9.0	29.4	8.0	29.4	9.8	29.9
13	9.0	29.4	8.0	29.9	9.8	30.5
14	8.3	29.4	8.0	29.9	9.0	29.4
15	8.3	29.4	8.0	28.8	8.9	29.9
16	8.5	28.8	8.3	28.3	8.0	29.4
17	8.6	28.3	9.0	29.9	8.5	29.9
18	9.0	28.3	9.0	28.3	8.6	29.4
19	9.0	29.4	9.0	28.3	8.6	29.4
20	9.2	29.4	9.0	29.4	9.0	29.4
21	10.0	29.4	9.8	29.4	9.5	29.9
22	10.0	29.4	9.9	28.8	9.9	29.4
23	9.8	28.8	9.3	28.3	10.0	29.4
24	9.2	29.9	9.9	28.3	10.0	29.4
25	9.2	29.4	9.8	28.3	11.0	28.8
26	9.0	28.3	9.9	28.3	12.3	29.4
27	8.3	29.4	8.9	28.3	11.0	29.4
28	8.7	28.3	9.0	28.3	10.0	27.8
29	8.0	29.9			9.8	25.6
30	8.2	29.9			9.2	28.3
31	8.4	28.8			9.0	28.3
MEANS	9.0	28.9	8.5	29.3	9.3	29.2
OBSVNS.	31	31	28	28	31	31
MAXIMUM	10.0	29.9	9.9	30.5	12.3	31.5
MINIMUM	8.0	27.2	6.8	28.3	8.0	25.6
STD.DEV.	.49	.71	.85	.83	.94	1.06

CAPE BEALE 48 47 12 N 125 12 53 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	9.5	30.5	9.9	28.8	12.3	30.5
2	9.2	29.9	10.5	29.4	11.8	31.0
3	9.0	29.9	9.9	28.3	12.1	30.5
4	9.0	29.9	10.0	28.8	10.9	31.0
5	9.3	30.5	10.6	28.3	11.2	27.8
6	10.0	31.5	10.8	26.1	12.4	30.5
7	10.0	31.5	10.8	26.1	* 11.8	* 30.7
8	10.0	30.5	10.0	30.5	11.2	31.0
9	10.1	31.0	10.0	30.5	12.2	31.0
10	8.9	31.0	11.0	29.9	12.0	29.9
11	9.0	31.0	11.0	30.5	10.9	31.0
12	8.0	31.0	10.2	31.0	11.7	31.0
13	8.7	30.5	11.0	29.4	12.5	29.4
14	8.0	30.5	10.5	29.4	13.0	29.9
15	9.0	31.0	11.0	30.5	12.0	30.5
16	9.0	31.0	10.2	31.5	12.1	29.4
17	9.2	31.0	10.2	31.5	11.9	30.5
18	10.7	31.5	12.0	31.0	10.9	29.4
19	11.5	28.8	* 12.0	* 30.8	12.9	29.9
20	10.0	30.5	11.9	30.5	12.5	30.5
21	10.0	30.5	12.4	30.5	11.5	29.4
22	10.0	27.8	13.0	31.5	12.8	29.4
23	10.0	28.8	11.0	31.5	13.0	29.4
24	11.0	28.8	12.3	30.5	14.0	28.8
25	14.0	29.4	13.1	30.5	14.0	28.8
26	12.0	28.3	12.0	29.9	11.5	30.5
27	* 11.0	* 28.1	13.0	30.5	12.3	29.4
28	9.9	27.8	12.1	30.5	11.8	29.4
29	10.0	29.4	11.8	30.5	11.2	30.5
30	10.5	28.8	11.5	31.0	11.2	28.8
31			11.7	31.0		
MEANS	9.8	30.1	11.2	30.0	12.1	30.0
OBSVNS.	29	29	30	30	29	29
MAXIMUM	14.0	31.5	13.1	31.5	14.0	31.0
MINIMUM	8.0	27.8	9.9	26.1	10.9	27.8
STD.DEV.	1.21	1.11	.99	1.39	.83	.85

1981

CAPE BEALE 48 47 12 N 125 12 53 W

	JULY		AUGUST		SEPTEMBER 19	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	11•0	30•5	12•0	31•0	11•5	31•2
2	13•8	31•0	11•5	31•5	11•2	31•7
3	13•2	28•3	12•0	31•5	11•0	31•7
4	12•2	31•0	12•0	31•5	11•6	31•2
5	10•9	31•0	12•8	31•0	11•7	31•2
6	11•8	31•0	* 13•4	* 31•2	11•7	30•7
7	12•3	30•5	14•0	31•5	13•0	30•7
8	11•0	31•0	* 13•5	* 31•5	11•9	31•2
9	14•3	28•3	12•9	31•5	* 11•8	* 31•2
10	* 13.5	* 29•0	15•0	31•0	11•7	31•2
11	* 12•6	* 29•7	13•0	31•5	* 11•7	* 31•2
12	11•7	30•5	13•0	31•5	11•6	31•2
13	12•1	29•9	13•0	31•5	11•9	31•7
14	*	*	*	*	11•9	31•7
15	*	*	*	*	* 11•9	* 31•5
16	*	*	*	*	12•0	31•2
17	12•7	31•0	*	*	12•0	30•7
18	12•8	30•5	12•2	31•5	12•0	30•7
19	12•8	31•0	12•0	31•5	12•5	30•2
20	* 12•6	* 31•0	12•0	31•0	10•9	30•7
21	12•4	31•0	12•0	31•5	* 10•6	* 30•9
22	* 12•7	* 31•2	11•5	31•5	10•3	31•2
23	13•0	31•5	12•7	32•1	10•6	31•2
24	13•0	31•0	12•0	32•1	10•7	32•3
25	14•6	29•9	* 11•9	* 32•1	11•0	31•7
26	15•8	29•9	11•7	32•1	11•1	32•3
27	9•5	30•5	11•3	32•6	11•8	31•2
28	12•0	31•5	11•5	30•7	11•4	32•3
29	11•5	31•5	11•0	31•2	* 11•9	* 31•3
30	11•9	31•5	11•3	30•7	12•5	30•2
31	12•2	31•5	11•0	31•2		
MEANS	12•4	30•6	12•2	31•4	11•6	31•3
OBSVNS•	24	24	24	24	25	25
MAXIMUM	15•8	31•5	15•0	32•6	13•0	32•3
MINIMUM	9•5	28•3	11•0	30•7	10•3	30•2
STD•DEV•	1•33	•87	•95	•45	•63	•58

CAPE BEALE 48 47 12 N 125 12 53 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER 1981 TEMP	DECEMBER 1981 SAL
1	12.8	31.2				
2	* 12.8	* 31.2	12.0	27.6	* 9.7	* 28.8
3	12.9	31.2	11.9	27.8	9.8	29.1
4	12.8	30.2	11.3	28.1	9.0	29.1
5	12.2	28.6	11.3	29.6	* 9.5	* 29.1
6	12.9	28.6	11.4	29.1	10.0	29.1
7	12.3	29.1	* 11.5	* 28.9	9.0	28.1
8	12.0	28.1	11.7	28.6	9.0	28.1
9	12.0	28.6	*	*	9.0	28.1
10	12.0	28.6	*	*	9.5	27.6
11	12.2	29.1	*	*	9.4	27.6
12	* 12.4	* 29.1	*	*	9.3	28.6
13	12.7	29.1	11.2	29.1	* 9.2	* 28.4
14	12.7	29.1	11.0	28.6	9.0	28.1
15	* 12.5	* 29.3	11.0	30.2	9.6	28.6
16	12.2	29.6	* 11.0	* 29.7	9.0	28.6
17	12.2	29.6	11.1	29.1	9.0	28.6
18	11.8	30.2	11.0	29.1	8.8	29.1
19	11.8	29.6	10.9	28.6	8.7	28.1
20	11.7	29.6	11.0	28.1	9.7	27.0
21	10.7	30.7	11.2	29.6	9.2	27.6
22	11.8	30.2	11.0	28.1	8.7	29.1
23	10.8	30.2	10.8	28.1	8.8	29.6
24	10.4	30.7	10.3	27.6	8.9	28.6
25	10.6	30.2	10.7	27.6	9.0	27.6
26	10.5	29.6	10.4	28.1	9.0	27.6
27	10.8	28.6	10.0	* 28.1	8.7	27.1
28	9.8	28.6	* 10.0	* 28.1	8.5	27.6
29	9.6	28.6	9.9	28.1	8.9	28.6
30	9.2	27.0	9.9	28.6	8.0	29.1
31	11.0	25.5	9.6	28.6	7.3	28.6
					6.9	28.1
MEANS OBSVNS.	11.6	29.3	10.9	28.5	8.9	28.3
	28	28	23	22	28	28
YRLY.MEANS					10.6	29.7
MAXIMUM	12.9	31.2	12.0	30.2	10.0	29.6
MINIMUM	9.2	25.5	9.6	27.6	6.9	27.0
STD.DEV.	1.06	1.22	.63	.71	.66	.68

SHERINGHAM PBINT 48 22 40 N 123 55 10 W

DATE	JANUARY TEMP	JANUARY SAL	FEBRUARY TEMP	FEBRUARY SAL	MARCH TEMP	MARCH SAL	198
1	8.9	29.3	8.9	30.3	8.9	29.8	
2	9.0	30.4	8.7	30.0	9.0	30.3	
3	8.9	29.5	9.1	30.3	9.0	30.6	
4	8.4	30.0	8.3	30.7	8.9	30.3	
5	8.9	30.3	9.0	30.6	9.1	30.6	
6	8.9	30.2	8.8	30.6	9.0	30.3	
7	8.8	30.3	8.8	30.6	9.0	30.3	
8	8.9	30.3	8.7	30.6	9.0	30.3	
9	8.9	30.6	8.7	30.6	9.1	30.6	
10	9.0	30.7	7.8	30.8	9.2	31.0	
11	8.9	30.6	8.4	30.8	9.0	30.8	
12	8.9	30.4	8.4	31.1	8.8	31.1	
13	8.8	30.8	8.4	30.8	9.0	30.8	
14	8.7	30.8	8.9	30.3	8.9	30.6	
15	8.6	30.3	8.6	30.6	9.0	30.8	
16	8.7	31.0	8.9	30.0	9.2	31.4	
17	8.8	30.6	8.9	30.6	9.1	30.8	
18	8.9	30.8	8.9	30.8	8.9	30.6	
19	9.0	30.8	8.9	30.6	8.9	30.6	
20	9.1	31.0	8.6	30.0	8.9	30.8	
21	9.2	30.6	8.6	30.6	9.0	30.6	
22	9.1	30.7	8.7	30.3	9.0	30.6	
23	8.9	31.1	8.6	30.3	9.0	30.6	
24	9.2	31.0	8.9	30.3	8.9	30.6	
25	9.1	31.0	8.9	30.3	9.0	30.8	
26	9.2	30.8	8.8	30.6	9.2	31.5	
27	8.9	30.0	8.7	30.4	9.1	31.6	
28	9.1	30.6	8.7	30.0	9.0	31.5	
29	8.8	30.3			8.9	31.1	
30	9.1	30.6			8.6	31.4	
31	8.9	30.0			8.9	31.6	
MEANS	8.9	30.5	8.7	30.5	9.0	30.8	
OBSVNS.	31	31	28	28	31	31	
MAXIMUM	9.2	31.1	9.1	31.1	9.2	31.6	
MINIMUM	8.4	29.3	7.8	30.0	8.6	29.8	
STD.DEV.	.16	.43	.26	.28	.12	.44	

SHERINGHAM POINT 48 22 40 N 123 55 10 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	8.9	31.1	9.4	31.6	11.4	32.1
2	8.9	31.9	9.1	31.6	11.3	32.1
3	9.0	31.4	9.0	31.6	10.0	31.8
4	9.0	31.6	9.0	32.0	11.1	32.0
5	9.0	31.9	9.4	31.8	9.2	32.0
6	9.0	31.9	9.0	32.1	11.0	32.0
7	9.2	32.3	9.0	31.8	11.2	32.3
8	9.1	32.1	9.0	32.0	11.1	32.0
9	8.6	31.5	9.2	32.0	10.7	31.8
10	8.9	31.6	9.6	31.5	11.2	32.0
11	8.6	31.2	9.4	31.8	10.8	31.8
12	8.8	31.6	9.3	31.8	11.3	32.3
13	8.6	31.4	9.3	31.8	10.9	32.0
14	8.9	31.6	9.3	32.0	12.2	31.4
15	8.9	31.4	10.0	31.8	10.3	31.5
16	9.0	31.6	9.0	32.1	11.2	32.3
17	9.0	31.4	9.4	31.9	10.4	32.1
18	9.0	31.6	9.6	32.4	11.2	32.0
19	9.0	31.5	10.0	31.8	10.3	32.0
20	8.9	31.5	10.1	32.0	11.3	32.0
21	8.9	31.4	9.9	31.8	11.3	32.0
22	9.0	31.5	10.1	32.1	11.6	32.3
23	9.1	31.8	10.0	31.8	11.2	31.9
24	9.1	31.8	10.1	31.6	11.3	32.0
25	9.0	31.6	9.9	31.5	10.6	32.0
26	9.2	31.2	10.4	32.0	11.3	32.1
27	9.1	31.5	10.1	31.8	11.2	32.3
28	9.1	31.6	10.0	31.5	11.1	32.0
29	9.2	31.5	10.2	32.1	11.7	31.6
30	9.1	31.6	10.2	32.0	11.2	32.3
31			11.1	32.0		
MEANS	9.0	31.6	9.6	31.9	11.0	32.0
OBSVNS.	30	30	31	31	30	30
MAXIMUM	9.2	32.3	11.1	32.4	12.2	32.3
MINIMUM	8.6	31.1	9.0	31.5	9.2	31.4
STD.DEV.	.16	.26	.53	.21	.56	.23

1981

SHERINGHAM POINT 48 22 40 N 123 55 10 W

	JULY		AUGUST		SEPTEMBER 19	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	12.5	32.1	11.4	30.2	11.1	31.5
2	11.3	32.3	11.6	29.9	11.3	31.8
3	12.2	32.4	11.4	29.9	11.0	31.8
4	11.2	32.5	11.3	31.2	11.3	31.9
5	11.6	32.3	11.9	31.0	11.1	31.8
6	11.3	32.5	12.2	31.4	11.7	31.4
7	11.1	31.8	12.3	31.0	13.3	31.1
8	11.2	32.3	12.8	30.8	11.3	31.5
9	11.1	30.7	13.2	30.8	11.2	31.2
10	11.2	31.0	13.3	31.0	11.2	31.0
11	11.7	31.1	12.7	31.2	11.2	31.0
12	11.3	30.4	13.6	30.3	11.3	31.0
13	11.4	30.8	12.9	30.4	11.2	31.0
14	11.3	30.7	12.7	30.4	11.1	30.7
15	12.2	30.6	12.6	30.3	11.2	31.0
16	11.3	31.0	12.6	30.0	11.2	30.7
17	11.9	30.8	12.6	29.9	11.1	31.8
18	11.3	31.0	11.7	30.7	11.2	32.0
19	11.4	31.2	11.1	30.8	10.8	31.6
20	11.3	31.2	11.1	31.5	11.1	31.5
21	11.4	31.8	11.7	30.8	10.8	31.4
22	11.3	31.0	11.8	31.4	10.9	31.0
23	10.6	31.5	11.7	31.6	10.9	31.2
24	11.3	31.2	11.8	31.2	10.4	31.0
25	11.3	31.1	11.7	30.8	11.0	31.8
26	11.4	30.6	11.8	31.1	11.0	32.0
27	11.3	31.0	12.8	31.4	11.5	31.8
28	11.1	31.0	11.3	31.8	11.5	31.0
29	11.7	30.7	12.0	30.7	10.2	31.8
30	11.3	29.8	12.2	31.5	10.2	31.0
31	11.8	31.0	10.8	31.2		
MEANS	11.4	31.3	12.1	30.8	11.1	31.4
OBSVNS.	31	31	31	31	30	30
MAXIMUM	12.5	32.5	13.6	31.8	13.3	32.0
MINIMUM	10.6	29.8	10.8	29.9	10.2	30.7
STD.DEV.	.38	.70	.71	.54	.53	.4

SHERINGHAM POINT 48 22 40 N 123 55 10 W

	OCTOBER		NOVEMBER		DECEMBER 1981	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	10.8	31.9	10.0	31.0	9.3	31.1
2	10.5	31.0	9.8	30.8	9.0	31.4
3	11.6	31.1	10.4	30.7	9.5	31.2
4	12.0	30.6	10.2	30.4	9.7	31.2
5	11.5	30.7	10.2	30.7	9.5	31.1
6	11.5	31.0	10.5	30.7	9.6	31.0
7	11.0	31.1	10.4	30.7	9.6	31.0
8	11.6	31.0	10.0	31.0	9.0	31.1
9	11.8	30.8	10.2	31.0	9.2	30.8
10	11.6	30.7	10.0	31.2	9.2	30.0
11	11.6	30.7	10.2	31.0	9.4	30.6
12	11.2	30.7	9.8	31.8	8.4	30.6
13	11.5	31.0	10.0	31.2	8.5	31.1
14	11.4	31.0	9.5	31.4	9.0	31.1
15	10.5	31.8	9.2	31.4	9.0	30.7
16	11.5	30.7	10.0	31.4	8.8	31.2
17	10.0	31.8	10.0	31.0	9.2	30.8
18	10.0	31.5	10.5	30.4	8.8	31.1
19	10.2	31.5	10.0	30.4	8.6	30.8
20	11.4	31.2	11.0	30.4	8.6	30.8
21	10.0	31.6	10.6	30.7	8.4	30.6
22	10.2	30.6	10.2	31.0	8.0	31.2
23	10.2	31.5	10.2	30.7	8.4	30.8
24	10.4	31.2	10.0	30.7	8.8	31.1
25	10.4	31.2	9.5	30.8	8.6	30.4
26	10.4	31.0	9.5	30.7	8.6	30.4
27	10.0	31.5	9.5	30.6	8.0	30.8
28	10.2	31.1	9.3	31.4	8.3	30.6
29	9.0	31.2	9.6	31.1	8.3	30.4
30	10.4	31.4	9.0	31.4	8.2	30.6
31	9.5	31.4			8.4	30.2
MEANS	10.8	31.1	10.0	30.9	8.8	30.8
OBSVNS.	31	31	30	30	31	31
YRLY.MEANS					10.0	31.1
MAXIMUM	12.0	31.9	11.0	31.8	9.7	31.4
MINIMUM	9.0	30.6	9.0	30.4	8.0	30.0
STD.DEV.	.77	.37	.45	.36	.49	.34

RACE ROCKS 48 17 57 N 123 31 58 W

	JANUARY		FEBRUARY		MARCH	19
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	8.5	31.0	8.3	31.4	8.5	31.2
2	8.6	31.0	8.3	31.5	8.5	31.2
3	8.4	31.1	8.2	31.1	8.4	31.0
4	8.4	31.0	8.3	31.1	8.4	31.1
5	8.4	31.0	8.2	31.4	8.6	31.1
6	8.4	31.1	8.3	31.2	8.6	31.4
7	8.5	31.2	8.2	31.5	8.7	31.1
8	8.4	31.2	8.1	31.6	8.6	31.2
9	8.4	31.0	8.2	31.4	8.7	31.5
10	8.4	31.1	8.3	31.1	8.7	31.4
11	8.3	31.0	8.2	31.5	8.8	31.4
12	8.4	31.2	8.3	31.5	8.8	31.2
13	8.4	31.2	8.3	31.2	8.8	31.0
14	8.5	31.1	8.4	31.4	8.9	31.2
15	8.4	31.1	8.3	31.4	9.1	31.0
16	8.3	31.1	8.4	31.5	9.2	31.1
17	8.3	31.0	8.4	31.6	9.2	30.8
18	8.3	31.2	8.5	31.8	9.2	30.7
19	8.4	31.4	8.6	31.6	9.1	31.1
20	8.2	31.1	8.7	31.6	9.2	31.1
21	8.3	31.2	8.6	31.2	9.2	31.2
22	8.2	31.5	8.6	31.4	9.2	31.4
23	8.2	31.5	8.4	31.5	9.1	31.4
24	8.3	31.4	8.6	31.6	9.2	31.2
25	8.3	31.2	8.5	31.4	9.1	31.4
26	8.2	31.0	8.6	31.5	9.0	30.8
27	8.1	31.0	8.6	31.1	8.9	31.2
28	8.0	31.1	8.6	31.4	8.9	31.4
29	8.0	31.1			8.8	31.2
30	8.1	31.2			8.8	31.1
31	8.0	31.4			8.8	31.0
MEANS	8.3	31.2	8.4	31.4	8.9	31.2
OBSVNS.	31	31	28	28	31	31
MAXIMUM	8.6	31.5	8.7	31.8	9.2	31.5
MINIMUM	8.0	31.0	8.1	31.1	8.4	30.7
STD.DEV.	.15	.15	.17	.18	.26	.1

RACE ROCKS 48 17 57 N 123 31 58 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	8.8	31.0	9.4	31.6	9.9	31.8
2	8.7	31.0	9.4	31.9	9.9	31.9
3	8.8	31.5	9.3	32.0	9.9	31.6
4	8.9	32.3	9.1	32.3	10.1	31.5
5	8.9	32.1	9.1	32.1	9.9	31.5
6	8.9	31.9	8.9	32.4	9.9	31.8
7	8.8	31.6	9.1	32.4	10.0	31.6
8	8.9	31.6	9.0	32.0	9.8	31.9
9	8.9	31.9	9.1	32.3	9.9	31.5
10	9.0	31.6	8.9	31.9	9.8	31.6
11	8.9	31.5	9.0	31.8	9.9	31.8
12	8.8	31.8	9.2	31.9	10.0	32.0
13	9.0	31.5	9.4	31.8	10.1	31.9
14	9.1	31.6	9.6	31.8	10.1	31.9
15	9.3	31.9	9.7	31.9	9.9	31.8
16	9.4	31.8	9.8	31.6	9.8	32.0
17	9.6	31.4	9.8	31.9	9.7	32.0
18	9.7	31.6	9.7	31.9	9.6	32.1
19	9.7	31.9	9.7	31.8	9.7	31.9
20	9.8	31.6	9.6	31.6	9.7	32.3
21	9.7	31.8	9.6	31.6	9.7	32.1
22	9.6	31.4	9.4	32.0	9.8	32.0
23	9.6	31.4	9.6	31.9	9.9	32.4
24	9.7	31.5	9.7	31.9	9.9	32.4
25	9.5	31.8	9.6	31.9	9.9	32.1
26	9.6	31.6	9.7	31.6	10.0	31.8
27	9.4	31.6	9.6	31.5	10.2	32.0
28	9.5	31.8	9.8	31.8	10.1	31.9
29	9.4	31.2	10.0	31.9	10.2	31.9
30	9.4	31.4	9.9	31.6	10.1	32.1
31			9.9	31.6		
MEANS	9.2	31.6	9.5	31.9	9.9	31.9
OBSVNS.	30	30	31	31	30	30
MAXIMUM	9.8	32.3	10.0	32.4	10.2	32.4
MINIMUM	8.7	31.0	8.9	31.5	9.6	31.5
STD.DEV.	.36	.29	.32	.24	.15	.24

RACE ROCKS 48 17 57 N 123 31 58 W

DATE	JULY TEMP	JULY SAL	AUGUST TEMP	AUGUST SAL	SEPTEMBER 1981 TEMP	SEPTEMBER 1981 SAL
1	10.2	31.9	10.6	32.3	10.7	32.4
2	10.3	32.1	10.6	32.3	10.6	32.4
3	10.3	32.3	10.7	32.1	10.7	32.3
4	10.1	32.3	10.8	32.1	10.6	32.3
5	10.2	32.1	10.9	31.9	10.6	32.7
6	10.1	32.4	11.1	31.9	10.6	32.4
7	10.2	32.0	11.0	31.9	10.4	32.0
8	10.1	32.3	11.2	32.3	10.5	32.4
9	10.1	32.1	11.1	32.5	10.6	32.1
10	10.2	32.0	11.0	32.4	10.4	32.3
11	10.2	31.9	10.9	32.5	10.4	32.3
12	10.3	32.1	10.9	32.4	10.5	32.7
13	10.2	32.4	10.8	32.3	10.4	32.4
14	10.3	32.3	10.7	31.9	10.4	32.1
15	10.4	32.4	10.7	32.1	10.4	32.3
16	10.3	32.0	10.6	32.0	10.5	32.1
17	10.4	32.1	10.7	32.0	10.3	32.3
18	10.3	32.3	10.5	32.3	10.2	32.4
19	10.3	31.9	10.3	32.5	10.1	32.4
20	10.4	32.0	10.3	32.4	10.1	32.5
21	10.4	32.3	10.4	32.1	10.0	32.3
22	10.5	32.0	10.1	32.0	9.8	32.3
23	10.6	31.8	10.2	32.1	9.9	32.0
24	10.7	32.0	10.1	31.9	9.7	32.0
25	10.5	32.1	10.2	32.3	9.8	32.3
26	10.4	32.4	10.3	32.1	9.7	32.1
27	10.6	32.3	10.4	32.5	9.7	32.4
28	10.6	32.1	10.3	32.8	9.7	32.0
29	10.6	32.1	10.3	32.7	9.6	32.1
30	10.5	32.4	10.2	32.5	9.4	32.3
31	10.5	32.4	10.3	32.8		
MEANS	10.3	32.2	10.6	32.3	10.2	32.3
OBSVNS.	31	31	31	31	30	30
MAXIMUM	10.7	32.4	11.2	32.8	10.7	32.7
MINIMUM	10.1	31.8	10.1	31.9	9.4	32.0
STD.DEV.	.17	.18	.33	.27	.38	.19

RACE ROCKS 48 17 57 N 123 31 58 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL		DECEMBER TEMP		DECEMBER SAL	1981
1	9.9	32.4	9.5	31.6		8.9		31.5	
2	9.9	32.3	9.6	31.9		8.9		31.6	
3	9.9	32.3	9.4	32.0		8.9		31.8	
4	9.8	32.0	9.3	31.9	*	9.0	*	31.7	
5	9.9	32.1	9.4	32.0		9.2		31.6	
6	9.8	32.4	9.4	32.1		8.9		31.5	
7	9.8	32.3	9.5	31.9		8.6		30.8	
8	9.8	32.3	9.3	31.5		8.9		31.2	
9	9.7	32.3	9.2	31.6		8.6		31.0	
10	9.8	32.1	9.3	31.5		8.7		30.4	
11	9.8	32.4	9.2	31.6		8.9		31.2	
12	9.9	32.0	9.3	31.8		8.3		31.1	
13	9.8	32.3	9.2	31.4	*		*		
14	9.9	32.1	9.2	31.5	*		*		
15	9.9	32.1	9.4	31.9	*		*		
16	9.8	32.3	9.3	31.6		8.8		32.0	
17	9.7	32.0	9.8	31.5		8.3		31.8	
18	9.7	32.1	9.7	31.2		8.6		31.2	
19	9.8	32.1	9.7	31.6		8.7		31.2	
20	9.7	32.1	9.7	31.6		8.7		31.2	
21	9.7	31.9	9.8	31.6		8.6		31.2	
22	9.6	31.6	9.8	31.5	*	8.6	*	31.1	
23	9.7	31.8	9.2	31.4		8.6		31.0	
24	9.6	31.9	9.2	31.5		8.3		31.2	
25	9.6	31.8	9.3	31.4		8.6		31.0	
26	9.6	31.6	9.3	31.4		8.3		31.2	
27	9.5	31.6	9.2	31.4		8.3		31.2	
28	9.4	31.5	9.1	31.4		8.6		31.1	
29	9.6	31.6	9.1	31.5		8.1		31.1	
30	9.5	31.9	9.0	31.5		7.8		31.1	
31	9.5	31.8				8.1		31.1	
MEANS	9.7	32.0	9.4	31.6		8.6		31.2	
OBSVNS.	31	31	30	30		26		26	
YRLY.MEANS						9.4		31.7	
MAXIMUM	9.9	32.4	9.8	32.1		9.2		32.0	
MINIMUM	9.4	31.5	9.0	31.2		7.8		30.4	
STD.DEV.	.14	.27	.23	.22		.32		.33	

CAPE MUDGE 49 59 56 N 125 11 38 W

DATE		JANUARY TEMP		JANUARY SAL		FEBRUARY TEMP		FEBRUARY SAL		MARCH TEMP		MARCH SAL	1981
1		7.9		28.9		7.6		26.5		8.4		28.5	
2		8.1		29.1		7.4		27.8		8.1		28.2	
3		8.1		29.1		7.6		27.8		8.0		28.2	
4		8.1		28.0		7.5		27.8		8.2		28.2	
5		8.1		27.8		7.8		27.3		7.8		27.8	
6		7.9		28.6		7.7		27.3		7.9		27.8	
7		8.0		27.8		7.9		27.6		8.2		28.2	
8		8.1		28.6		8.2		27.7		8.1		28.2	
9	*	8.1	*	28.3		7.1		28.5		7.7		28.4	
10		8.1		28.0		6.9		28.5		7.8		28.1	
11		7.4		29.1		4.7		29.3		8.2		29.0	
12	*	7.5	*	29.2		8.2		29.3		8.3		29.0	
13		7.7		29.3		8.1		29.4		8.2		28.2	
14		7.8		29.3		8.5		28.5		8.3		28.2	
15		8.2		28.4	*	8.5	*	28.5	*	8.2	*	28.5	
16		8.0		28.1	*	8.4	*	28.6		8.1		28.8	
17		8.2		28.2		8.3		28.6		8.2		28.8	
18	*		*			8.1		28.6		7.8		28.4	
19	*		*		*	7.9	*	28.6		8.0		28.4	
20	*		*			7.7		28.6		7.7		28.4	
21	*		*			7.8		28.4		8.2		28.2	
22	*		*			7.9		28.6		8.4		28.2	
23		8.2		28.4		7.9		28.4		8.2		29.3	
24		8.1		28.4		7.9		27.8		8.1		28.5	
25		8.3		28.8		8.3		28.5		8.6		29.8	
26	*	7.9	*	28.6		8.2		28.5		8.4		29.3	
27		7.4		28.4		8.1		28.2		8.6		29.3	
28		8.2		27.8		8.3		28.2		8.5		29.5	
29		8.0		27.8						8.6		28.8	
30		7.7		27.3						8.8		28.8	
31		7.5		26.5						8.6		29.0	
MEANS		8.0		28.3		7.7		28.2		8.2		28.6	
OBSVNS.		23		23		25		25		30		30	
MAXIMUM		8.3		29.3		8.5		29.4		8.8		29.8	
MINIMUM		7.4		26.5		4.7		26.5		7.7		27.8	
STD.DEV.		.26		.68		.74		.67		.29		.51	

CAPE MUDGE 49 59 56 N 125 11 38 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	8.9	28.5	10.2	28.8	13.3	28.1
2	8.5	28.5	10.3	28.8	13.1	28.1
3	8.6	28.8	10.4	28.6	12.7	28.5
4	* 8.5	* 28.7	11.2	29.3	13.0	28.2
5	8.3	28.5	10.6	29.1	11.9	28.2
6	10.3	29.4	10.6	28.8	12.0	28.0
7	9.7	29.1	10.4	29.3	11.9	28.0
8	10.0	29.1	9.7	29.1	11.1	28.2
9	9.3	29.3	9.7	29.3	14.0	27.4
10	* 9.4	* 29.2	10.1	28.8	14.4	24.4
11	9.6	29.1	11.0	28.9	16.8	25.2
12	8.8	29.0	9.9	28.9	16.7	25.2
13	8.9	29.3	10.9	29.3	16.8	25.2
14	9.0	29.3	11.0	29.0	14.4	27.4
15	8.6	29.0	9.3	28.8	14.6	27.3
16	8.9	29.0	10.1	29.3	14.0	27.4
17	8.4	29.0	10.3	29.3	13.9	28.1
18	8.4	29.3	10.9	29.1	* 13.9	* 27.4
19	8.6	29.3	10.3	28.9	* 13.8	* 26.6
20	8.6	29.3	13.1	28.6	13.8	25.9
21	8.3	29.0	13.3	27.8	13.4	25.9
22	9.0	29.3	11.2	29.1	12.5	27.4
23	8.7	29.2	11.2	28.4	12.5	27.3
24	8.4	29.0	11.3	28.6	12.8	26.4
25	8.2	28.0	11.3	28.9	12.4	27.3
26	9.1	28.0	11.9	28.8	12.8	27.4
27	* 8.6	* 27.9	11.6	28.6	13.1	27.4
28	8.1	27.8	11.7	28.5	13.6	28.0
29	9.4	29.1	12.3	28.2	13.6	28.0
30	10.0	28.6	* 12.3	* 27.7	13.8	25.9
31			12.3	27.2		
MEANS	8.9	28.9	10.9	28.8	13.5	27.1
OBSVNS.	27	27	30	30	28	28
MAXIMUM	10.3	29.4	13.3	29.3	16.8	28.5
MINIMUM	8.1	27.8	9.3	27.2	11.1	24.4
STD.DEV.	.59	.44	.97	.46	1.42	1.14

CAPE MUDGE 49 59 56 N 125 11 38 W

DATE	JULY TEMP	JULY SAL	AUGUST TEMP	AUGUST SAL	SEPTEMBER 1981 TEMP	SEPTEMBER 1981 SAL
1	13.8	29.7	12.8	28.5	14.2	27.8
2	13.8	28.2	13.1	29.0	14.4	27.8
3	12.8	28.2	15.6	29.0	12.0	29.1
4	12.7	28.5	14.2	28.9	12.8	27.8
5	12.2	28.8	12.8	29.1	14.2	27.8
6	11.9	29.0	16.7	27.7	15.2	28.1
7	12.9	29.0	15.7	29.0	15.3	28.2
8	12.8	29.0	17.2	27.8	16.8	28.0
9	13.7	28.2	19.1	26.7	* 16.8	* 28.0
10	13.8	29.7	19.2	27.8	16.7	28.1
11	* 15.3	* 28.9	12.3	28.5	15.1	28.0
12	16.9	28.1	12.7	28.5	14.3	28.0
13	16.7	28.1	12.3	28.5	12.7	29.1
14	15.8	28.2	12.8	29.0	12.8	29.3
15	15.6	28.1	12.7	28.9	13.1	28.8
16	14.7	28.5	12.1	29.1	12.3	29.4
17	14.4	28.4	12.5	28.5	12.2	29.3
18	14.4	28.5	12.0	29.1	11.1	29.1
19	13.1	28.5	12.2	29.3	11.0	29.3
20	13.2	28.4	11.7	29.4	* 11.4	* 29.1
21	13.1	28.5	12.2	29.3	* 11.7	* 29.0
22	13.7	28.2	13.6	28.8	12.1	28.8
23	13.6	28.2	14.2	28.9	11.9	28.8
24	12.8	28.4	14.4	29.0	12.8	28.8
25	12.5	27.4	14.6	29.1	13.2	28.4
26	12.8	28.5	14.2	28.6	13.1	28.8
27	12.3	28.4	13.9	28.8	* 13.5	* 28.6
28	12.2	29.1	* 14.0	* 28.7	14.0	28.4
29	12.3	29.1	14.2	28.6	13.6	28.9
30	13.1	29.1	14.4	27.6	13.3	28.4
31	* 13.0	* 28.8	* 14.3	* 27.7		
MEANS	13.6	28.6	14.0	28.7	13.5	28.5
OBSVNS.	29	29	29	29	26	26
MAXIMUM	16.9	29.7	19.2	29.4	16.8	29.4
MINIMUM	11.9	27.4	11.7	26.7	11.0	27.8
STD.DEV.	1.31	.50	2.01	.61	1.51	.55

CAPE MUDGE 49 59 56 N 125 11 38 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER TEMP	DECEMBER SAL
1	11.8	29.0	10.7	28.4	7.7	28.6
2	11.7	29.1	10.1	29.0	7.6	28.6
3	11.1	28.8	10.1	28.6	7.6	28.8
4	10.8	28.1	10.0	28.6	* 8.2	* 28.5
5	10.6	28.5	10.6	28.5	8.8	28.1
6	* 11.2	* 28.7	9.8	28.6	8.0	27.7
7	11.9	28.9	9.7	25.9	8.4	28.2
8	11.9	28.8	10.0	28.5	7.6	28.6
9	14.1	28.9	10.1	28.5	7.2	27.7
10	12.4	28.8	10.0	28.6	8.2	27.7
11	11.6	28.1	9.9	28.4	8.6	28.5
12	11.4	28.1	* 9.9	* 28.4	8.2	27.7
13	12.2	28.5	* 9.8	* 28.5	8.1	27.8
14	12.3	28.6	9.7	28.6	8.1	28.0
15	12.1	28.1	9.7	28.6	8.0	28.0
16	9.7	28.9	9.0	28.5	7.8	28.0
17	10.0	28.8	9.2	28.5	7.2	27.8
18	10.1	28.8	9.1	28.4	8.2	28.1
19	8.7	28.8	9.2	28.2	8.2	28.1
20	9.9	28.8	9.7	28.5	8.2	27.7
21	10.4	28.6	9.8	28.6	7.5	27.7
22	10.3	28.6	10.0	28.5	7.9	27.7
23	10.4	28.9	9.7	28.6	8.0	27.7
24	10.4	28.6	9.7	28.6	8.2	28.2
25	10.5	29.1	9.4	28.4	8.6	29.0
26	9.9	29.0	9.2	28.0	8.1	28.5
27	10.1	28.8	9.0	28.0	7.8	28.5
28	10.3	29.1	9.0	28.1	7.9	28.5
29	10.3	29.0	8.9	28.5	7.8	28.5
30	* 10.4	* 28.8	* 8.3	* 28.5	6.8	28.1
31	* 10.6	* 28.6			6.7	28.1
MEANS	11.0	28.7	9.7	28.4	7.9	28.1
OBSVNS.	28	28	27	27	30	30
YRLY.MEANS					10.6	28.4
MAXIMUM	14.1	29.1	10.7	29.0	8.8	29.0
MINIMUM	8.7	28.1	8.9	25.9	6.7	27.7
STD.DEV.	1.12	.31	.48	.54	.49	.39

CHROME ISLAND 49 28 20 N 124 40 57 W

DATE	JANUARY TEMP	JANUARY SAL	FEBRUARY TEMP	FEBRUARY SAL	MARCH TEMP	MARCH SAL
1	7.5	25.8	7.0	26.1	8.0	26.8
2	6.9	25.2	7.1	26.7	7.8	27.3
3	7.1	24.3	7.5	27.2	7.8	27.3
4	7.2	26.7	7.0	27.3	8.0	26.4
5	7.2	26.7	7.0	26.9	7.8	27.3
6	7.5	28.1	6.9	27.2	7.8	27.4
7	8.1	26.8	7.0	27.7	7.9	27.3
8	7.2	26.9	6.6	28.0	7.5	27.7
9	7.8	28.4	6.3	27.1	7.4	27.6
10	7.2	28.2	6.9	27.3	7.9	28.4
11	7.8	27.8	6.2	27.2	7.9	27.7
12	7.4	27.8	6.1	27.6	7.9	27.3
13	7.5	27.2	6.9	27.1	7.9	28.5
14	7.2	27.1	7.3	27.7	8.1	28.1
15	7.4	27.8	8.0	28.4	8.1	27.6
16	7.2	26.4	8.0	28.4	8.6	28.5
17	6.9	25.6	8.0	28.4	8.2	28.2
18	6.9	26.7	8.6	28.4	8.5	27.4
19	7.8	27.3	8.1	27.6	9.2	28.2
20	8.2	28.4	8.0	28.4	9.0	28.2
21	8.0	28.6	7.7	28.5	8.3	28.0
22	8.2	28.5	7.9	28.6	8.3	28.0
23	8.1	28.4	7.6	27.8	8.1	27.7
24	7.5	28.1	7.8	28.2	7.9	28.5
25	6.9	26.3	7.9	27.2	8.1	28.2
26	7.2	27.8	7.8	27.8	7.9	28.9
27	7.5	28.0	7.5	27.6	8.3	28.4
28	6.4	23.3	7.8	27.3	8.4	28.4
29	7.3	26.5			8.2	28.0
30	7.2	26.4			8.2	28.2
31	7.3	27.1			8.8	28.2
MEANS	7.4	27.0	7.4	27.6	8.1	27.9
OBSVNS.	31	31	28	28	31	31
MAXIMUM	8.2	28.6	8.6	28.6	9.2	28.9
MINIMUM	6.4	23.3	6.1	26.1	7.4	26.4
STD.DEV.	.43	1.26	.64	.63	.39	.56

CHROME ISLAND 49 28 20 N 124 40 57 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	8.9	28.0	9.3	28.9	12.9	28.2
2	8.8	29.0	9.6	28.4	13.5	27.7
3	9.0	28.8	8.8	28.2	11.9	27.7
4	8.5	28.1	9.8	29.0	11.8	28.8
5	8.8	28.2	10.0	28.4	10.9	28.2
6	8.8	28.2	9.2	28.2	10.6	28.8
7	8.8	28.0	9.4	28.1	10.9	27.3
8	8.3	28.0	9.0	28.4	12.4	26.3
9	8.2	28.4	9.1	28.1	12.2	26.3
10	8.3	28.4	10.0	28.1	12.3	27.2
11	8.0	28.8	10.6	28.2	13.5	27.2
12	7.9	29.1	11.3	28.1	13.5	27.2
13	8.3	28.1	11.5	27.8	14.0	26.5
14	8.9	28.2	11.5	27.6	15.6	23.0
15	8.8	28.2	12.1	27.3	13.0	25.4
16	9.0	28.4	11.8	27.2	13.5	26.7
17	9.3	28.4	11.7	27.8	11.9	26.9
18	10.8	27.7	11.9	27.8	11.7	27.4
19	10.4	27.8	12.4	28.1	11.9	27.2
20	9.5	28.5	13.4	27.8	12.2	27.6
21	9.2	28.2	12.8	28.2	11.7	27.6
22	9.0	28.4	11.7	28.6	11.8	26.1
23 *	8.8 *	28.6	11.2	27.8	11.9	26.4
24	8.5	28.9	10.8	28.2	12.5	26.8
25	9.3	28.8	11.3	28.1	13.9	24.2
26	9.8	27.1	10.8	29.1	14.4	24.3
27	9.4	27.7	11.9	29.0	14.6	23.1
28	9.1	28.5	12.2	27.6	14.6	23.5
29	9.3	28.2	13.3	26.4	13.9	25.0
30	9.6	28.4	12.3	27.6	13.9	26.1
31			13.3	27.7		
MEANS	9.0	28.3	11.1	28.1	12.8	26.5
OBSVNS.	29	29	31	31	30	30
MAXIMUM	10.8	29.1	13.4	29.1	15.6	28.8
MINIMUM	7.9	27.1	8.8	26.4	10.6	23.0
STD.DEV.	.65	.43	1.37	.56	1.24	1.58

CHROME ISLAND 49 2m 20 N 124 40 57 W

	JULY		AUGUST		SEPTEMBER 198	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	14.8	25.8	18.6	26.8	13.7	27.4
2	15.2	25.9	17.5	26.4	13.4	28.2
3	15.6	25.5	16.2	27.6	13.9	27.4
4	15.8	26.0	16.1	26.5	12.8	28.0
5	16.1	25.9	15.8	27.1	13.4	28.2
6	15.6	26.0	15.6	27.8	15.2	28.4
7	15.6	26.3	17.2	27.4	15.5	28.5
8	15.3	26.0	18.7	27.2	18.0	28.2
9	16.1	26.3	20.3	25.8	15.0	28.4
10	15.6	25.9	21.1	24.8	15.8	28.9
11	16.4	26.1	21.2	25.2	15.0	27.8
12	16.9	25.8	20.2	25.2	15.4	28.0
13	16.0	26.0	21.1	26.0	15.8	27.3
14	16.1	26.0	20.0	25.8	16.1	27.3
15	16.9	26.3	20.0	25.9	16.0	27.1
16	18.3	25.4	18.9	26.9	15.9	27.3
17	18.1	25.5	19.8	27.8	15.3	27.7
18	16.8	26.3	18.9	26.7	14.4	27.4
19	15.9	26.3	17.5	26.9	13.0	27.7
20	15.6	26.4	15.6	27.6	12.3	27.8
21	15.8	26.0	14.9	28.0	12.9	29.0
22	16.9	26.3	16.0	27.3	13.1	28.1
23	18.1	26.5	14.8	28.1	12.8	29.0
24	18.6	25.8	14.8	27.4	12.8	29.0
25	19.4	25.6	15.6	27.2	13.5	29.3
26	20.5	25.9	15.2	27.6	13.5	28.5
27	20.6	25.9	14.0	27.8	12.8	29.0
28	18.5	26.7	14.2	27.3	13.1	29.0
29	18.2	26.1	14.4	27.2	12.8	28.8
30	18.0	26.5	14.2	* 27.2	* 12.2	29.1
31	18.0	26.5	13.9	27.2		
MEANS	16.9	26.0	17.2	26.9	14.2	28.2
OBSVNS.	31	31	31	30	29	30
MAXIMUM	20.6	26.7	21.2	28.1	18.0	29.3
MINIMUM	14.8	25.4	13.9	24.8	12.3	27.1
STD.DEV.	1.55	.32	2.44	.88	1.43	.66

CHROME ISLAND 49 26 20 N 124 40 57 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER TEMP	DECEMBER SAL	1981
1	12.1	28.9	11.1	24.7	9.7	28.9	
2	11.7	29.1	11.4	28.4	9.7	28.4	
3	11.7	28.2	11.6	29.1	9.4	29.0	
4	11.9	27.4	11.0	28.5	9.6	28.8	
5	11.9	28.5	11.1	28.5	9.7	28.9	
6	12.3	28.9	10.8	27.8	9.5	27.1	
7	12.3	28.9	11.1	28.4	8.7	24.3	
8	11.9	29.0	11.1	28.6	8.7	26.4	
9	11.9	28.8	10.8	27.3	8.4	25.0	
10	11.9	27.7	10.9	28.0	8.9	27.2	
11	13.0	27.7	11.1	28.0	9.2	27.8	
12	12.8	27.7	10.9	29.3	8.9	27.2	
13	12.6	28.1	10.9	29.5	8.3	28.1	
14	12.8	27.7	10.8	29.0	9.0	28.5	
15	11.9	27.7	10.6	29.0	8.9	27.8	
16	11.8	28.2	10.6	28.1	8.9	27.4	
17	11.9	28.4	10.1	28.4	9.0	28.0	
18	11.9	28.0	10.1	27.1	9.0	27.7	
19	12.0	28.2	10.6	28.5	9.4	28.2	
20	11.9	28.2	10.6	28.9	9.2	28.0	
21	11.9	28.2	10.7	28.5	8.9	28.2	
22	11.9	28.8	10.6	28.6	8.9	28.2	
23	12.4	28.6	10.3	28.1	8.6	26.9	
24	12.3	27.6	10.2	27.8	8.6	27.4	
25	12.2	28.9	9.4	28.2	8.6	28.2	
26	11.9	29.0	9.6	28.0	8.6	28.0	
27	11.7	29.0	9.2	25.9	8.3	28.4	
28	11.9	28.8	9.4	28.4	7.8	26.8	
29	11.3	29.4	9.6	28.5	7.8	28.4	
30	* 11.2	* 29.2	9.4	28.5	7.8	28.8	
31	11.1	29.0			7.8	28.1	
MEANS	12.0	28.4	10.5	28.2	8.8	27.7	
OBSVNS.	30	30	30	30	31	31	
YRLY.MEANS					11.3	27.6	
MAXIMUM	13.0	29.4	11.6	29.5	9.7	29.0	
MINIMUM	11.1	27.4	9.2	24.7	7.8	24.3	
STD.DEV.	.41	.56	.65	.96	.57	1.06	

SISTERS ISLAND 49 29 13 N 124 26 00 W

	JANUARY		FEBRUARY		MARCH	198
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	7.6	27.6	7.8	27.3	8.2	27.7
2	6.7	25.4	7.4	27.2	8.4	27.6
3	6.6	25.5	7.8	27.4	8.1	27.6
4	6.7	25.4	7.4	27.1	6.8	28.2
5	7.1	25.4	7.4	27.2	7.7	28.5
6	7.2	26.9	7.4	27.2	7.4	28.2
7	7.6	27.2	6.9	27.3	7.6	28.2
8	7.4	27.2	7.0	27.2	7.7	28.1
9	7.6	27.1	6.9	27.6	7.7	28.4
10	7.6	27.4	6.7	27.6	7.9	27.8
11	7.3	25.9	6.8	27.6	8.0	27.8
12	7.1	24.0	6.7	27.6	8.2	27.7
13	7.3	24.2	6.8	27.6	8.6	27.4
14	7.0	23.7	7.6	27.4	9.1	27.3
15	6.4	23.3	7.9	27.7	8.4	28.1
16	7.1	24.0	8.3	28.0	8.4	27.8
17	6.9	23.5	8.4	28.2	8.6	27.7
18	7.9	27.3	8.2	28.2	8.0	27.6
19	8.2	28.1	8.2	28.6	8.3	27.8
20	8.1	27.3	7.9	28.2	8.5	28.1
21	8.1	27.4	7.9	27.8	8.9	27.6
22	8.1	27.4	7.4	27.7	8.5	27.7
23	7.9	26.5	7.4	27.7	8.5	27.8
24	7.8	26.8	7.6	27.6	8.7	27.8
25	7.3	26.9	7.7	28.1	8.5	28.6
26	7.8	27.2	7.6	27.8	8.8	28.2
27	7.7	27.1	7.7	27.8	9.1	28.0
28	7.6	26.9	7.9	27.6	9.2	28.0
29	7.6	27.2			8.8	28.0
30	7.7	27.3			8.8	27.8
31	7.6	27.4			8.9	28.6
MEANS	7.4	26.3	7.5	27.7	8.3	27.9
OBSVNS.	31	31	28	28	31	31
MAXIMUM	8.2	28.1	8.4	28.6	9.2	28.6
MINIMUM	6.4	23.3	6.7	27.1	6.8	27.3
STD.DEV.	.47	1.42	.50	.37	.55	.33

SISTERS ISLAND 49 29 13 N 124 26 00 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
						1981
1	9.3	28.4	9.7	28.1	15.8	25.2
2	9.3	28.4	9.7	28.2	13.6	27.7
3	8.8	28.4	9.7	28.1	13.6	27.4
4	8.7	27.2	9.2	27.8	13.1	25.6
5	8.5	28.5	9.7	28.0	13.0	24.6
6	8.4	28.5	10.1	27.4	13.1	24.7
7	8.4	28.6	10.2	27.6	12.9	21.3
8	8.6	28.5	10.1	27.3	13.8	18.2
9	8.7	28.5	10.1	28.2	13.2	20.9
10	8.7	28.5	10.3	28.0	13.0	21.6
11	8.5	28.8	10.4	26.8	14.1	20.6
12	8.4	28.8	11.9	26.4	14.5	19.5
13	8.8	28.8	12.3	26.7	15.5	19.7
14	8.8	28.6	12.7	28.0	15.4	22.6
15	9.1	28.5	12.5	27.6	14.3	24.8
16	9.6	28.4	12.8	28.2	14.7	24.3
17	9.7	28.1	12.4	28.2	14.3	24.8
18	10.3	28.1	13.3	27.6	13.4	24.3
19	10.8	28.8	14.2	28.0	14.3	21.7
20	9.4	28.4	14.1	28.1	14.1	18.7
21	9.7	28.0	13.9	28.1	13.3	21.2
22	9.6	28.1	12.5	28.2	13.3	21.0
23	9.9	28.1	13.6	28.2	13.3	22.2
24	9.4	28.2	13.1	27.8	14.2	20.9
25	9.7	28.2	12.9	27.3	15.3	20.5
26	9.6	27.7	13.8	25.4	14.7	23.7
27	9.9	28.5	14.7	24.2	14.7	24.6
28	9.9	28.0	16.1	23.8	14.4	24.7
29	10.4	28.0	16.3	23.7	14.9	24.3
30	9.9	28.0	13.9	27.4	15.2	24.3
31			15.3	26.9		
MEANS	9.3	28.3	12.3	27.3	14.1	22.9
OBSVNS.	30	30	31	31	30	30
MAXIMUM	10.8	28.8	16.3	28.2	15.8	27.7
MINIMUM	8.4	27.2	9.2	23.7	12.9	18.2
STD.DEV.	.66	.35	2.06	1.29	.85	2.47

SISTERS ISLAND 49 29 13 N 124 26 00 W

DATE	JULY TEMP	JULY SAL	AUGUST TEMP	AUGUST SAL	SEPTEMBER 1981 TEMP	SEPTEMBER 1981 SAL
1	15.8	24.8	19.3	24.0	15.7	27.1
2	16.9	24.6	17.6	25.5	15.7	27.3
3	16.2	24.3	17.5	26.1	15.4	27.4
4	15.3	25.2	17.4	25.8	15.3	27.2
5	16.3	25.4	17.2	25.1	16.4	26.5
6	16.1	25.2	17.8	25.0	16.8	25.4
7	15.6	25.5	17.7	25.6	16.9	26.4
8	15.7	25.5	19.7	25.0	18.1	26.1
9	15.3	24.8	20.4	25.5	17.3	26.7
10	15.7	25.6	20.4	26.4	15.9	26.8
11	15.7	26.3	20.6	25.5	16.6	26.8
12	16.3	25.8	19.6	26.0	14.6	28.1
13	16.8	26.3	18.8	26.1	14.2	28.1
14	16.4	24.8	17.0	27.3	14.9	27.7
15	17.0	24.8	16.9	27.2	15.5	27.8
16	18.5	26.3	17.8	27.2	15.2	27.7
17	18.1	25.4	17.8	26.9	15.8	28.6
18	18.2	25.4	18.5	26.8	15.4	28.1
19	18.3	25.0	19.2	27.8	15.4	28.0
20	18.4	25.2	17.3	27.8	14.9	27.3
21	18.9	25.1	17.4	26.4	13.2	28.2
22	18.9	26.5	16.6	27.6	13.5	28.2
23	18.1	26.1	17.8	26.3	13.2	28.4
24	18.6	25.2	17.8	26.5	13.8	28.0
25	18.6	26.0	17.7	25.6	14.2	26.5
26	18.7	25.9	18.3	25.9	13.3	27.3
27	18.6	26.7	17.8	26.3	12.8	27.8
28	17.8	26.4	16.7	25.9	12.8	28.1
29	17.8	26.8	16.8	25.8	12.4	28.2
30	18.7	25.9	17.2	26.9	16.1	27.4
31	18.6	25.4	15.7	26.8		
MEANS	17.3	25.6	18.0	26.2	15.0	27.4
OBSVNS.	31	31	31	31	30	30
MAXIMUM	18.9	26.8	20.6	27.8	18.1	28.6
MINIMUM	15.3	24.3	15.7	24.0	12.4	25.4
STD.DEV.	1.27	.65	1.21	.89	1.46	0.75

SISTERS ISLAND 49 29 13 N 124 26 00 W

	OCTOBER		NOVEMBER		DECEMBER	1981
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	11.7	28.1	10.4	28.8	8.8	27.7
2	11.9	27.1	10.6	28.6	8.9	27.6
3	11.9	26.9	10.6	28.0	8.6	27.6
4	11.7	27.2	10.2	28.0	8.9	28.1
5	11.4	27.4	10.3	28.2	8.8	26.7
6	11.3	29.3	10.3	28.4	8.6	27.4
7	11.7	28.0	10.3	28.1	8.5	27.4
8	11.4	27.2	10.4	28.1	8.3	27.3
9	11.7	27.3	10.6	27.7	7.8	26.1
10	11.4	27.2	10.4	27.7	8.2	27.3
11	11.4	27.3	10.4	28.5	8.2	27.3
12	11.8	27.7	10.2	28.1	7.2	26.9
13	10.9	28.0	10.1	28.6	7.4	27.4
14	10.9	27.7	9.8	28.4	8.1	27.7
15	11.1	27.6	9.8	28.2	7.5	27.2
16	11.1	28.0	9.8	28.2	7.6	27.2
17	11.2	28.1	9.7	27.8	7.5	27.2
18	11.2	28.2	9.4	26.9	8.5	27.2
19	11.3	28.5	9.7	28.0	8.2	27.2
20	11.2	28.2	9.9	28.5	7.9	27.1
21	11.2	27.3	9.7	27.8	7.7	27.3
22	11.1	26.9	9.4	27.2	7.3	27.3
23	10.8	27.6	9.7	27.7	7.3	27.3
24	10.7	27.3	9.3	27.3	7.5	27.6
25	10.9	28.5	9.2	27.3	7.6	27.3
26	10.8	28.1	9.0	27.6	7.4	27.7
27	10.8	28.8	8.7	28.0	7.3	27.6
28	10.7	28.6	8.7	27.4	7.3	27.6
29	10.7	28.6	8.5	27.6	7.2	27.7
30	10.6	28.0	8.6	27.3	7.2	27.6
31	10.6	28.4			7.4	28.1
MEANS	11.2	27.8	9.8	27.9	7.9	27.4
OBSVNS.	31	31	30	30	31	31
YRLY.MEANS					11.5	26.9
MAXIMUM	11.9	29.3	10.6	28.8	8.9	28.1
MINIMUM	10.6	26.9	8.5	26.9	7.2	26.1
STD.DEV.	.40	.61	.63	.48	.58	.38

DEPARTURE BAY 49 12 38 N 123 57 17 W

DATE	JANUARY TEMP	JANUARY SAL	FEBRUARY TEMP	FEBRUARY SAL	MARCH TEMP	MARCH SAL	19
1	*	*	* 7.5	* 26.51	*	* 25.90	
2	*	*	7.5	26.54	*	25.95	
3	*	*	7.7	26.93	*	26.01	
4	*	*	7.3	26.61	*	27.23	
5	7.5	25.22	7.3	26.63	*	26.76	
6	7.0	24.40	6.8	26.60	*	*	
7	7.5	26.82	* 6.7	* 26.65	*	*	
8	6.8	26.48	* 6.6	* 26.70	*	*	
9	7.3	26.43	6.5	26.76	*	27.89	
10	* 7.3	* 26.56	5.5	26.36	*	28.03	
11	* 7.4	* 26.70	5.0	26.73	*	27.46	
12	7.4	26.83	5.8	26.66	*	25.62	
13	7.5	26.58	7.4	26.63	*	24.98	
14	6.7	22.61	*	*	*	* 25.48	
15	6.1	20.50	*	*	*	* 25.97	
16	6.4	21.14	*	*	*	26.47	
17	* 7.0	* 22.94	8.0	22.53	*	25.82	
18	* 7.6	* 24.75	7.8	21.08	*	25.76	
19	8.2	26.55	7.8	20.11	*	26.07	
20	8.3	26.35	7.5	26.42	*	26.33	
21	8.2	25.26	* 7.3	* 26.42	*	* 26.51	
22	8.7	25.46	* 7.2	* 26.41	*	* 26.68	
23	7.8	25.18	7.0	26.41	9.3	26.86	
24	* 7.7	* 24.51	7.7	25.87	8.5	27.53	
25	* 7.5	* 23.84	7.8	25.44	8.6	27.62	
26	7.3	23.17	7.8	26.05	8.5	28.41	
27	7.5	27.62	8.0	25.82	9.3	27.31	
28	8.0	27.81	*	* 25.86	* 9.1	* 27.29	
29	7.1	26.70			* 9.0	* 27.28	
30	7.5	26.46			8.8	27.26	
31	* 7.5	* 26.48			9.5	25.55	
MEANS	7.4	25.38	7.2	25.59	8.9	26.71	
OBSVNS.	20	20	19	19	7	21	
MAXIMUM	8.7	27.81	8.0	26.93	9.5	28.41	
MINIMUM	6.1	20.50	5.0	20.11	8.5	24.98	
STD.DEV.	.65	2.045	.88	2.011	.43	.94	

DEPARTURE BAY 49 12 38 N 123 57 17 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	*	*	*	*	*	*
2	*		*	*	*	*
3	*		*	*	*	*
4	*	*	*	*	*	*
5	*	*	*	*	*	*
6	*	*	*	*	*	*
7	*	*	*	*	*	*
8	*	*	*	*	*	*
9	9.0	27.89	*	*	*	*
10	*	*	*	*	13.1	26.62
11	*	*	*	*	13.2	23.37
12	*	*	*	*	13.2	26.36
13	*	*	*	*	14.0	21.65
14	9.9	27.99	*	*	* 13.9	* 20.95
15	9.8	27.95	*	*	* 13.8	* 20.25
16	10.6	27.75	*	*	13.7	19.55
17	*	*	*	*	13.2	25.81
18	*	*	*	*	13.2	24.26
19	*	*	*	*	13.0	24.26
20	*	*	*	*	12.0	27.42
21	*	*	*	*	* 12.3	* 24.94
22	*	*	*	*	* 12.6	* 22.46
23	*	*	*	*	13.0	19.98
24	*	*	*	*	13.0	24.58
25	*	*	*	*	13.4	23.16
26	*	*	*	*	16.0	16.76
27	*	*	*	*	16.5	17.56
28	*	*	*	*	* 16.0	* 19.72
29	*	*	*	*	* 15.5	* 21.88
30	*	*	*	*	14.9	24.04
31			*	*	14.0	25.49
MEANS	9.8	27.90	0.0	0.0	13.7	23.18
OBSVNS.	4	4	0	0	16	16
MAXIMUM	10.6	27.99	0.0	0.0	16.5	27.42
MINIMUM	9.0	27.75	0.0	0.0	12.0	16.76
STD.DEV.	.46	.105	0.00	0.00	1.17	3.223

DEPARTURE BAY 49 12 38 N 123 57 17 W

	JULY		AUGUST		SEPTEMBER 1981	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	* 15.0	* 24.43	*	*	* 15.1	* 25.48
2	* 16.0	* 23.38	*	*	* 14.3	* 26.78
3	17.0	22.32	*	*	13.5	28.09
4	* 16.7	* 22.54	13.4	27.99	*	*
5	* 16.4	* 22.75	* 15.3	* 25.43	*	*
6	16.0	22.97	* 17.1	* 22.87	*	*
7	* 16.3	* 23.19	19.0	20.31	*	*
8	16.6	23.41	* 19.2	* 21.25	18.3	*
9	15.8	24.62	* 19.4	* 22.19	16.1	26.24
10	*	*	19.7	23.14	15.2	27.69
11	*	*	20.2	23.76	14.6	28.80
12	*	*	20.4	24.90	* 15.2	* 27.86
13	18.3	22.42	20.0	25.17	* 15.7	* 26.93
14	18.8	23.65	*	*	16.3	25.99
15	17.6	24.00	*	*	16.1	26.31
16	17.8	22.74	*	*	15.9	26.81
17	18.7	21.30	20.3	25.83	16.0	26.91
18	* 17.8	* 22.64	19.2	25.83	13.7	27.86
19	* 17.0	* 23.98	18.5	26.37	12.5	* 27.91
20	16.1	25.33	17.5	26.44	* 12.5	* 27.95
21	16.1	23.97	14.6	28.04	12.5	28.00
22	17.5	22.07	* 15.8	* 26.34	11.8	28.77
23	18.7	21.63	* 17.0	* 24.64	11.2	29.15
24	19.2	23.04	18.3	22.93	11.4	29.07
25	* 19.6	* 23.51	17.9	23.57	11.4	28.96
26	* 19.9	* 23.98	16.5	25.23	*	*
27	20.3	24.45	15.7	25.38	*	*
28	19.2	24.64	16.7	23.29	*	*
29	19.0	24.97	* 16.4	* 23.58	12.3	27.53
30	18.0	25.36	* 16.2	* 23.87	12.0	26.23
31	17.9	26.19	15.9	24.17		
MEANS	17.8	23.64	17.9	24.84	13.9	27.65
OBSVNS.	19	19	17	17	18	16
MAXIMUM	20.3	26.19	20.4	28.04	18.3	29.15
MINIMUM	15.8	21.30	13.4	20.31	11.2	26.23
STD.DEV.	1.29	1.368	2.12	1.941	2.16	1.117

DEPARTURE BAY 49 12 38 N 123 57 17 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER TEMP	DECEMBER SAL
1	11.5	27.24	*	*	*	*
2	11.3	28.28	*	*	*	*
3	*	*	9.5	25.52	9.5	28.27
4	*	*	* 9.8	* 24.33	*	*
5	*	*	10.2	23.13	*	*
6	11.5	25.84	10.3	22.83	*	*
7	10.7	26.35	9.5	22.72	*	*
8	10.8	25.95	* 9.6	* 24.33	*	*
9	*	*	* 9.7	* 25.93	*	*
10	*	*	9.8	27.54	8.2	26.72
11	*	*	10.0	27.78	*	*
12	*	*	* 10.2	* 26.16	*	*
13	11.7	25.91	10.4	24.54	*	*
14	11.7	26.05	9.6	22.08	*	*
15	11.4	26.77	* 9.6	* 23.07	7.4	25.40
16	11.3	27.13	* 9.6	* 24.05	9.0	28.09
17	* 11.4	*26.93	9.6	25.04	7.5	25.01
18	* 11.5	*26.72	9.5	26.94	7.4	25.69
19	11.7	26.52	9.3	24.21	*	*
20	11.4	26.55	* 9.3	* 23.23	*	*
21	* 11.4	*26.47	9.3	22.24	*	*
22	11.4	26.38	* 9.2	* 24.25	*	*
23	*	*	9.1	26.27	*	*
24	*	*	* 9.0	* 26.70	6.6	25.26
25	*	*	8.9	27.13	*	*
26	10.9	27.01	8.7	24.08	*	*
27	11.2	26.81	8.7	24.46	*	*
28	* 10.9	*27.20	8.0	23.13	*	*
29	10.5	27.58	*	*	* 6.1	24.19
30	*	*	*	*	* 6.4	* 25.21
31	*	*	*	*	* 6.7	* 26.22
					7.0	27.24
MEANS	11.3	26.69			*	*
OBSVNS.	15	15	9.4	24.68	7.6	26.21
YRLY.MEANS			17	17	9	9
MAXIMUM	11.7	28.28	10.4	27.78	11.3	25.68
MINIMUM	10.5	25.84	8.0	22.08	9.5	28.27
					6.1	24.19
STD.DEV.	.38	0.680	.63	1.898	1.15	1.433

ENTRANCE ISLAND 49 12 34 N 123 48 27 W

	JANUARY		FEBRUARY		MARCH	1981
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	7.2	21.3	7.3	27.3	7.8	27.4
2	7.4	24.0	7.2	27.3	7.8	27.3
3	6.9	23.4	7.2	27.3	7.9	27.1
4	6.7	22.0	7.1	26.4	7.8	28.0
5	7.1	24.3	6.7	26.3	7.2	27.4
6	7.0	24.0	6.6	26.8	7.4	27.8
7	7.6	25.5	6.7	27.2	7.9	28.2
8	7.5	26.4	6.6	27.3	7.9	28.9
9	8.2	28.5	6.5	27.3	7.6	28.1
10	8.2	28.6	6.1	27.6	7.6	27.7
11	8.1	28.5	6.7	27.1	8.3	27.8
12	7.2	26.8	6.5	28.0	8.3	27.3
13	7.5	26.8	7.9	28.2	8.3	25.1
14	7.2	26.7	8.5	28.8	8.6	28.0
15	6.1	21.2	8.6	29.5	8.9	28.4
16	6.6	22.2	8.7	29.4	8.6	28.4
17	6.7	23.7	8.3	27.4	8.4	27.6
18	8.4	28.5	8.5	29.7	8.7	27.3
19	8.2	28.4	8.4	29.5	8.6	27.3
20	8.2	28.1	7.5	27.6	8.6	27.8
21	8.4	28.6	8.2	28.8	8.9	27.7
22	8.6	29.0	7.7	26.8	8.7	27.4
23	7.8	23.7	7.4	27.3	8.6	28.2
24	7.4	24.2	7.8	27.6	8.5	29.3
25	6.4	22.4	7.7	27.3	8.5	28.9
26	8.2	28.8	7.6	27.7	8.7	29.4
27	7.9	27.7	7.4	27.2	8.7	28.6
28	8.1	28.6	7.9	27.4	9.2	28.2
29	7.5	27.7			8.7	29.4
30	7.4	27.2			8.7	28.5
31	7.2	27.2			9.1	29.3
MEANS	7.5	25.9	7.5	27.7	8.3	28.0
OBSVNS.	31	31	28	28	31	31
MAXIMUM	8.6	29.0	8.7	29.7	9.2	29.4
MINIMUM	6.1	21.2	6.1	26.3	7.2	25.1
STD.DEV.	.65	2.56	.74	.93	.51	.87

ENTRANCE ISLAND 49 12 34 N 123 48 27 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL
1	8.6	28.8	9.8	27.8	16.2	17.9
2	8.7	28.2	9.9	28.4	12.8	26.9
3	8.7	29.0	10.2	27.8	10.3	28.6
4	8.4	27.7	9.6	28.4	10.7	28.8
5	8.7	29.0	10.0	27.6	10.7	28.5
6	8.4	28.5	10.5	21.0	10.7	29.0
7	8.2	27.2	10.4	26.8	10.3	28.9
8	8.8	28.6	9.9	27.7	11.7	28.4
9	8.3	28.6	10.6	27.1	12.0	28.5
10	8.6	29.4	10.8	26.5	11.6	28.5
11	8.6	29.4	11.3	25.6	12.7	28.2
12	8.5	28.8	12.3	24.7	13.6	23.8
13	8.9	29.5	12.0	24.7	14.6	16.2
14	9.4	29.1	12.9	25.4	15.3	17.1
15	9.1	28.8	13.4	25.2	12.4	25.2
16	9.7	28.6	13.1	25.2	12.7	28.0
17	9.1	28.2	11.7	28.0	12.6	27.8
18	9.6	26.0	13.1	25.4	11.6	28.5
19	10.3	25.4	13.4	27.1	12.1	28.4
20	10.3	25.0	13.3	28.5	12.8	24.7
21	10.3	25.6	11.1	28.8	12.9	22.7
22	9.1	28.6	11.6	28.9	12.6	26.4
23	9.2	28.8	11.9	28.9	12.4	26.1
24	9.0	29.0	12.0	29.0	14.0	22.4
25	9.2	28.6	11.5	28.9	15.8	18.6
26	10.2	27.7	11.5	28.6	15.0	19.9
27	10.0	27.8	13.7	27.1	16.3	19.7
28	9.6	28.5	17.4	21.8	15.1	23.3
29	9.9	28.6	17.6	19.0	14.5	25.1
30	10.3	28.5	16.9	19.5	14.6	23.9
31			16.1	15.6		
MEANS	9.2	28.2	12.2	26.0	13.0	25.0
OBSVNS.	30	30	31	31	30	30
MAXIMUM	10.3	29.5	17.6	29.0	16.3	29.0
MINIMUM	8.2	25.0	9.6	15.6	10.3	16.2
STD.DEV.	.67	1.19	2.22	3.34	1.77	4.02

ENTRANCE ISLAND 49 12 34 N 123 48 27 W

	JULY		AUGUST		SEPTEMBER 1981	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	17.3	22.1	17.2	25.8	12.5	28.6
2	18.6	23.9	16.7	26.1	13.8	28.2
3	17.4	22.4	13.3	27.2	14.4	27.3
4	16.8	22.6	12.9	28.0	15.0	27.1
5	17.2	22.1	14.1	28.5	16.7	23.8
6	16.3	23.0	17.1	25.5	16.9	23.8
7	16.1	23.3	18.9	20.8	18.1	24.8
8	16.4	23.5	19.2	23.3	18.0	23.7
9	16.2	23.4	20.6	22.4	17.0	26.5
10	16.1	23.1	20.0	24.2	15.4	27.3
11	16.5	24.3	19.7	24.3	14.1	28.5
12	17.7	23.7	19.4	25.6	16.7	26.3
13	17.4	23.3	19.1	26.0	16.6	25.8
14	17.3	25.1	19.1	25.8	16.5	25.8
15	17.3	23.1	19.6	25.5	16.9	26.1
16	18.9	20.1	21.1	25.5	17.3	26.0
17	17.9	19.5	20.3	25.6	14.3	27.6
18	16.1	24.2	20.3	26.1	13.5	28.1
19	14.9	25.2	18.6	25.6	14.3	28.0
20	17.4	22.6	14.2	27.6	13.7	27.6
21	18.2	19.9	14.0	28.1	10.7	28.8
22	18.7	20.8	15.1	28.2	11.0	29.0
23	18.4	21.0	16.7	26.5	11.2	29.0
24	18.4	22.4	17.9	23.8	11.5	28.9
25	18.6	23.9	17.8	24.8	12.7	28.2
26	19.6	23.9	18.2	23.4	11.5	28.6
27	19.2	24.6	17.5	22.5	11.1	28.9
28	18.7	24.7	16.3	24.0	12.1	28.4
29	18.8	25.1	17.8	22.6	12.4	27.3
30	18.2	25.2	18.3	23.3	11.2	28.6
31	17.0	25.5	12.4	28.1		
MEANS	17.5	23.1	17.5	25.3	14.2	27.2
OBSVNS.	31	31	31	31	30	30
MAXIMUM	19.6	25.5	21.1	28.5	18.1	29.0
MINIMUM	14.9	19.5	12.4	20.8	10.7	23.7
STD.DEV.	1.13	1.61	2.44	1.97	2.39	1.63

ENTRANCE ISLAND 49 12 34 N 123 48 27 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER 1981 TEMP	DECEMBER 1981 SAL
1	10.7	28.8	10.0	29.7	8.8	27.3
2	10.5	28.2	10.1	28.1	9.2	27.7
3	12.1	25.6	10.2	28.9	8.9	27.7
4	12.0	26.8	10.1	23.1	9.1	28.2
5	11.7	27.6	10.2	23.8	9.7	29.0
6	10.7	29.0	9.9	23.8	9.1	27.6
7	10.7	28.9	9.8	23.8	8.9	26.4
8	10.9	28.6	10.2	26.9	7.8	25.1
9	11.8	27.2	10.2	26.9	7.9	25.0
10	11.4	27.1	10.3	28.0	8.7	27.2
11	11.3	24.0	10.4	28.8	7.5	25.9
12	11.4	27.3	10.2	27.6	7.7	25.6
13	11.9	25.5	10.1	28.6	7.4	25.8
14	11.2	26.0	10.1	28.5	8.5	27.7
15	11.1	26.7	10.0	28.8	8.8	27.7
16	11.1	26.8	9.8	28.5	8.2	27.4
17	11.1	27.4	9.3	23.7	8.0	27.7
18	11.2	27.4	9.4	24.2	8.8	27.8
19	11.6	27.2	9.9	28.2	9.2	28.6
20	11.4	26.4	10.0	28.4	8.8	28.0
21	11.3	26.1	10.0	28.4	8.0	27.6
22	11.3	26.1	9.8	28.6	7.5	28.6
23	11.2	26.9	* 9.8	* 28.4	8.0	27.4
24	11.1	26.7	9.9	28.1	8.4	28.2
25	11.0	26.9	8.6	23.5	8.6	27.1
26	10.9	27.3	9.1	27.1	7.8	27.7
27	10.9	28.2	7.8	23.7	7.0	26.5
28	10.8	28.4	7.2	21.7	6.9	27.1
29	10.4	29.1	9.1	27.4	7.6	27.6
30	10.1	28.9	8.8	27.1	7.0	27.1
31	9.9	29.1			7.8	27.6
MEANS	11.1	27.3	9.7	26.7	8.2	27.3
OBSVNS.	31	31	29	29	31	31
YRLY.MEANS					11.4	26.5
MAXIMUM	12.1	29.1	10.4	29.7	9.7	29.0
MINIMUM	9.9	24.0	7.2	21.7	6.9	25.0
STD.DEV.	.51	1.23	.76	2.31	.74	.98

WEST VANCOUVER 49 20 18 N 123 14 06 W

DATE	JANUARY TEMP		SAL	FEBRUARY TEMP		SAL	MARCH TEMP		SAL	1981
1	8.0	*		8.1	*		9.0	*		
2	7.5	*		8.2	*		8.5	*		
3	8.8	*		6.2	*		8.5	*		
4	8.7	*		6.9	*		8.5	*		
5	8.8	*		5.6	*		8.5	*		
6	7.8	*		6.0	*		7.9	*		
7	7.9	*		7.5	*		8.5	*		
8	7.0	*		7.6	*		8.5	*		
9	7.0	*		6.7	*		8.6	*		
10	7.2	*		6.8	*		8.3	*		
11	8.0	*		6.1	*		8.3	*		
12	7.9	*		6.5	*		8.2	*		
13	7.1	*		6.0	*		9.0	*		
14	7.8	*		7.5	*		9.0	*		
15	7.2	*		7.5	*		9.0	*		
16	8.0	*		7.0	*		9.0	*		
17	7.9	*		7.5	*		9.0	*		
18	8.0	*		8.0	*		8.9	*		
19	8.8	*		7.3	*		8.9	*		
20	7.2	*		7.6	*		8.6	*		
21	8.0	*		8.5	*		8.7	*		
22	8.1	*		8.5	*		9.0	*		
23	8.1	*		6.5	*		8.8	*		
24	8.0	*		6.8	*		10.5	*		
25	8.3	*		6.5	*		9.9	*		
26	8.1	*		6.7	*		9.2	*		
27	8.0	*		6.8	*		9.2	*		
28	7.9	*		9.0	*		9.0	*		
29	7.8	*					8.7	*		
30	8.0	*					8.5	*		
31	8.1	*					8.5	*		
MEANS	7.9		0.0	7.1		0.0	8.8		0.0	
OBSVNS.	31		0	28		0	31		0	
MAXIMUM	8.8		0.0	9.0		0.0	10.5		0.0	
MINIMUM	7.0		0.0	5.6		0.0	7.9		0.0	
STD.DEV.	.50		0.00	.86		0.00	.49		0.00	

WEST VANCOUVER 49 20 18 N 123 14 06 W

DATE	APRIL TEMP		MAY TEMP		JUNE TEMP	1981
		SAL		SAL		SAL
1	9.7	*	10.5	*	15.0	*
2	9.2	*	10.2	*	16.0	*
3	9.1	*	9.9	*	16.2	*
4	8.7	*	10.1	*	17.1	*
5	8.5	*	10.5	*	15.7	*
6	9.2	*	10.4	*	14.8	*
7	9.1	*	9.8	*	13.0	*
8	8.5	*	10.1	*	12.2	*
9	8.2	*	9.9	*	12.5	*
10	7.8	*	10.2	*	13.1	*
11	8.8	*	9.9	*	14.1	*
12	8.6	*	10.0	*	15.8	*
13	8.0	*	10.6	*	15.2	*
14	8.2	*	10.8	*	15.7	*
15	8.1	*	10.1	*	14.0	*
16	8.0	*	10.3	*	13.8	*
17	8.5	*	12.2	*	13.8	*
18	9.0	*	12.6	*	12.5	*
19	8.7	*	13.4	*	13.0	*
20	*	*	13.2	*	12.1	*
21	*	*	13.2	*	14.0	*
22	*	*	12.8	*	12.5	*
23	*	*	14.7	*	13.1	*
24	*	*	13.5	*	13.3	*
25	*	*	14.1	*	13.0	*
26	*	*	14.1	*	17.1	*
27	9.2	*	14.3	*	17.0	*
28	8.9	*	14.8	*	17.0	*
29	10.0	*	17.0	*	15.5	*
30	10.1	*	17.0	*	16.0	*
31			14.0	*		
MEANS	8.8	0.0	12.1	0.0	14.5	0.0
OBSVNS.	23	0	31	0	30	0
MAXIMUM	10.1	0.0	17.0	0.0	17.1	0.0
MINIMUM	7.8	0.0	9.8	0.0	12.1	0.0
STD.DEV.	.62	0.00	2.19	0.00	1.63	0.00

WEST VANCOUVER 49 20 18 N 123 14 06 W

	JULY			AUGUST			SEPTEMBER 198		
DATE	TEMP		SAL	TEMP		SAL	TEMP		SAL
1	16.5	*		17.6	*		15.8	*	
2	16.0	*		17.5	*		15.0	*	
3	16.0	*		17.1	*		15.0	*	
4	17.0	*		18.0	*		15.9	*	
5	16.9	*		18.0	*		15.5	*	
6	15.0	*		18.8	*		17.0	*	
7	15.0	*		18.9	*		18.5	*	
8	15.5	*		19.0	*		15.6	*	
9	16.5	*		18.9	*		16.0	*	
10	15.5	*		17.0	*		16.1	*	
11	16.5	*		14.5	*		14.5	*	
12	16.5	*		15.6	*		14.0	*	
13	17.1	*		16.5	*		14.2	*	
14	16.9	*		18.0	*		14.1	*	
15	16.2	*		17.0	*		14.0	*	
16	16.9	*		17.0	*		14.2	*	
17	16.5	*		17.1	*		15.8	*	
18	16.5	*		16.9	*		15.0	*	
19	17.5	*		16.8	*		16.1	*	
20	17.5	*		16.9	*		15.6	*	
21	18.0	*		19.0	*		14.2	*	
22	18.0	*		19.0	*		14.2	*	
23	18.0	*		18.4	*		14.0	*	
24	17.2	*		18.9	*		14.1	*	
25	17.6	*		18.5	*		13.0	*	
26	17.5	*		17.9	*		13.0	*	
27	17.0	*		18.1	*		12.0	*	
28	17.3	*		15.8	*		13.1	*	
29	17.2	*		14.0	*		13.0	*	
30	17.1	*		14.1	*		12.9	*	
31	16.9	*		16.8	*			*	
MEANS	16.8		0.0	17.3		0.0	14.7		0.0
OBSVNS.	31		0	30		0	30		0
MAXIMUM	18.0		0.0	19.0		0.0	18.5		0.0
MINIMUM	15.0		0.0	14.0		0.0	12.0		0.0
STD.DEV.	.80		0.00	1.40		0.00	1.40		0.00

WEST VANCOUVER 49 20 18 N 123 14 06 W

DATE	OCTOBER TEMP	SAL	NOVEMBER TEMP	SAL	DECEMBER 1981 TEMP	SAL
1	13.1	*			7.9	*
2	11.0	*	10.1	*	7.9	*
3	12.1	*	10.0	*	8.1	*
4	11.6	*	10.1	*	8.2	*
5	12.0	*	10.2	*	8.2	*
6	10.5	*	9.5	*	8.4	*
7	10.3	*	9.7	*	8.8	*
8	10.1	*	10.1	*	8.0	*
9	10.0	*	9.0	*	8.1	*
10	9.5	*	10.0	*	8.0	*
11	9.6	*	9.9	*	7.2	*
12	10.1	*	9.8	*	6.9	*
13	10.2	*	9.9	*	6.9	*
14	10.1	*	9.9	*	6.8	*
15	9.9	*	9.2	*	6.7	*
16	10.1	*	9.0	*	7.5	*
17	10.2	*	8.7	*	7.2	*
18	10.1	*	8.9	*	7.0	*
19	10.2	*	8.8	*	7.1	*
20	10.1	*	8.9	*	7.2	*
21	10.2	*	8.8	*	7.1	*
22	10.1	*	8.7	*	6.5	*
23	10.2	*	8.5	*	6.8	*
24	10.1	*	7.9	*	6.7	*
25	10.1	*	8.7	*	6.5	*
26	10.1	*	8.5	*	6.3	*
27	10.1	*	8.2	*	6.0	*
28	10.0	*	7.4	*	6.5	*
29	9.8	*	8.0	*	6.6	*
30	9.9	*	7.9	*	7.0	*
31	9.8	*	7.2	*	6.2	*
MEANS	10.4	0.0	9.0	0.0	7.3	0.0
OBSVNS.	31	0	30	0	30	0
YRLY.MEANS					11.3	0.0
MAXIMUM	13.1	0.0	10.2	0.0	8.8	0.0
MINIMUM	9.5	0.0	7.2	0.0	6.0	0.0
STD.DEV.	.79	0.00	.86	0.00	.74	0.00

ACTIVE PASS 48 52 26 N 123 17 23 W

DATE	JANUARY TEMP	JANUARY SAL	FEBRUARY TEMP	FEBRUARY SAL	MARCH TEMP	MARCH SAL
1	6.9	15.6	7.8	26.3	7.8	20.6
2	6.5	14.4	7.6	26.3	8.2	24.4
3	7.2	21.0	7.2	22.2	8.2	24.2
4	7.8	20.9	7.2	23.5	8.2	23.1
5	7.5	22.2	7.1	21.3	8.1	27.4
6	7.9	25.1	7.1	24.8	8.6	28.9
7	7.8	23.5	6.9	24.3	8.3	26.7
8	7.8	25.2	6.5	21.8	8.3	28.8
9	8.6	28.9	6.5	27.7	7.8	27.7
10	8.2	28.5	6.6	27.7	8.3	24.4
11	7.3	28.5	6.0	26.8	8.4	25.0
12	7.1	23.9	6.9	26.5	8.5	27.1
13	6.8	23.5	8.4	28.9	8.5	27.1
14	6.9	23.7	8.4	29.4	9.1	27.6
15	6.8	20.1	8.8	29.7	8.8	27.1
16	6.4	20.9	8.3	30.0	* 8.8	* 25.2
17	6.8	22.1	8.2	29.8	8.9	23.3
18	7.2	25.4	8.4	29.9	9.4	23.8
19	8.2	26.1	8.1	29.0	9.4	24.0
20	8.3	26.9	8.8	28.6	9.4	25.5
21	8.6	26.4	8.3	26.7	9.4	27.8
22	8.7	26.4	8.2	26.7	9.3	28.2
23	8.7	26.4	8.1	26.3	8.4	28.8
24	7.1	19.2	8.0	26.3	8.2	29.3
25	7.2	22.9	7.8	26.4	9.4	30.2
26	8.1	27.3	7.8	26.0	* 9.4	* 27.0
27	7.3	26.4	* 7.7	* 23.2	9.4	23.7
28	7.7	27.4	7.6	20.4	9.3	24.4
29	* 7.2	* 24.0			9.2	26.5
30	6.7	20.6			8.7	28.1
31	7.2	21.0			9.1	29.1
MEANS	7.5	23.7	7.7	26.4	8.7	26.3
OBSVNS.	30	30	27	27	29	29
MAXIMUM	8.7	28.9	8.8	30.0	9.4	30.2
MINIMUM	6.4	14.4	6.0	20.4	7.8	20.6
STD.DEV.	.68	3.63	.76	2.74	.53	2.35

ACTIVE PASS 48 52 26 N 123 17 23 W

DATE	APRIL TEMP	APRIL SAL	MAY TEMP	MAY SAL	JUNE TEMP	JUNE SAL	1981
1	10.0	27.6	10.7	28.4	13.4	23.5	
2	9.7	28.5	9.9	29.9	11.1	28.1	
3	8.8	23.3	9.1	29.0	10.2	29.7	
4	8.7	24.2	10.2	28.8	10.4	28.5	
5	8.6	28.9	9.9	28.1	10.8	29.1	
6	9.6	26.5	9.6	31.0	10.6	29.3	
7	8.2	27.3	8.9	28.6	10.6	27.2	
8	8.7	28.8	9.9	28.2	10.3	28.6	
9	8.6	28.9	10.0	26.5	10.6	29.1	
10	8.5	28.9	12.6	15.7	11.2	29.1	
11	8.9	30.2	11.8	16.2	11.2	28.9	
12	8.7	29.1	12.7	16.9	11.0	28.4	
13	9.4	27.7	12.8	18.3	14.3	09.6	
14	10.3	29.0	11.7	27.8	14.1	22.1	
15	10.1	28.0	13.1	24.7	11.4	27.3	
16	10.3	29.1	10.4	29.0	13.9	26.3	
17	10.2	27.6	10.6	27.8	11.2	27.4	
18	14.4	20.0	10.6	27.3	11.6	27.7	
19	11.2	24.4	10.1	28.1	12.3	27.2	
20	10.9	24.7	10.3	29.8	12.1	25.9	
21	9.4	26.8	10.1	29.7	11.6	26.9	
22	9.4	28.9	9.9	28.9	12.1	28.9	
23	10.7	29.1	9.9	28.5	13.9	20.3	
24	9.3	28.6	10.2	28.2	18.4	10.5	
25	9.3	23.7	11.6	26.8	17.8	17.8	
26	10.6	24.0	11.6	24.8	18.0	19.6	
27	10.2	27.7	14.6	07.2	17.1	21.2	
28	9.1	28.5	17.2	09.0	15.6	23.3	
29	10.1	28.1	15.3	07.3	14.1	25.8	
30	10.7	28.0	14.0	17.3	12.7	25.6	
31			14.3	13.6			
MEANS	9.8	27.2	11.4	23.9	12.8	25.1	
OBSVNS.	30	30	31	31	30	30	
MAXIMUM	14.4	30.2	17.2	31.0	18.4	29.7	
MINIMUM	8.2	20.0	8.9	7.2	10.2	9.6	
STD.DEV.	1.20	2.34	2.01	7.26	2.46	5.19	

ACTIVE PASS 48 52 26 N 123 17 23 W

	JULY		AUGUST		SEPTEMBER 1981	
DATE	TEMP	SAL	TEMP	SAL	TEMP	SAL
1	16•7	18•0	13•2	28•5	12•7	28•8
2	16•6	20•4	12•9	28•6	12•2	28•8
3	16•6	22•1	13•9	27•6	12•3	29•0
4	18•2	22•1	* 13•4	* 27•4	14•0	24•0
5	14•3	24•0	12•8	27•2	* 15•7	* 18•6
6	12•8	25•0	14•3	27•2	17•4	13•2
7	13•9	21•2	18•3	12•0	15•4	22•0
8	15•4	23•3	20•2	14•9	16•4	24•6
9	15•6	18•4	20•3	20•3	13•6	28•5
10	14•9	22•6	21•1	12•4	12•8	28•5
11	16•3	23•1	20•5	17•1	13•1	27•7
12	18•3	14•2	19•7	22•4	17•3	19•7
13	14•2	23•8	19•6	19•0	16•6	20•6
14	14•9	24•8	18•9	21•4	15•1	21•3
15	16•1	20•8	17•7	25•4	14•3	25•0
16	19•5	16•1	16•1	26•8	13•9	28•0
17	15•8	22•9	14•9	28•0	13•8	28•2
18	14•0	24•8	16•0	26•5	12•8	28•6
19	14•4	25•6	12•8	28•5	11•8	28•9
20	14•5	25•1	12•7	28•6	11•8	28•5
21	13•9	24•2	12•6	28•5	11•4	29•4
22	16•6	19•7	13•4	29•4	11•2	29•9
23	16•9	17•9	17•4	20•3	12•7	28•9
24	18•1	18•0	14•1	25•0	11•4	29•3
25	20•0	11•6	13•7	26•8	12•3	27•1
26	19•9	16•6	17•8	18•6	11•2	29•1
27	19•9	17•3	12•9	28•4	11•4	29•3
28	18•3	23•3	13•4	25•4	11•0	27•8
29	17•2	23•4	12•6	26•4	11•3	29•1
30	16•5	25•6	13•9	25•5	11•2	29•0
31	13•9	26•8	11•7	29•0		
MEANS	16•3	21•4	15•6	24•2	13•2	26•6
OBSVNS•	31	31	30	30	29	29
MAXIMUM	20•0	26•8	21•1	29•4	17•4	29•9
MINIMUM	12•8	11•6	11•7	12•0	11•0	13•2
STD•DEV•	2•02	3•73	3•01	5•12	1•94	3•90

ACTIVE PASS 48 52 26 N 123 17 23 W

DATE	OCTOBER TEMP	OCTOBER SAL	NOVEMBER TEMP	NOVEMBER SAL	DECEMBER 1981 TEMP	DECEMBER 1981 SAL
1	10.7	28.1	10.2	29.0	8.8	28.2
2	10.2	29.1	9.9	29.0	* 8.9	* 28.4
3	11.8	22.6	10.1	27.8	9.1	28.6
4	11.4	27.3	9.7	20.4	9.1	28.2
5	10.8	28.6	9.6	15.8	9.2	30.0
6	11.1	29.0	9.9	23.8	9.0	29.0
7	11.4	29.4	10.1	24.7	9.0	28.9
8	10.6	29.1	10.4	28.8	8.6	28.0
9	11.1	29.7	10.4	28.0	8.3	26.9
10	10.9	29.3	10.1	23.4	9.0	28.6
11	11.5	22.1	10.4	28.2	7.9	25.1
12	11.1	21.7	10.0	28.0	7.3	24.2
13	11.1	23.9	10.0	29.1	7.9	25.8
14	11.1	24.0	9.9	28.8	8.5	28.0
15	11.1	25.1	9.6	29.0	8.1	27.4
16	10.9	25.8	9.6	30.0	8.0	26.7
17	10.8	28.2	9.1	22.6	8.0	27.7
18	11.5	22.0	9.7	27.2	8.0	26.9
19	11.4	24.2	9.7	28.4	9.0	28.9
20	11.2	24.2	10.0	28.8	8.7	27.8
21	11.2	25.9	9.9	29.0	7.0	22.0
22	11.3	25.2	9.7	28.6	7.1	25.0
23	11.5	28.0	10.0	29.1	8.1	26.9
24	11.3	28.2	9.2	28.1	8.3	28.6
25	11.1	28.0	9.8	27.7	7.8	25.2
26	10.7	27.8	* 9.5	* 25.2	7.2	22.4
27	11.1	28.9	9.2	22.6	6.5	23.8
28	10.6	29.1	9.6	23.4	7.2	28.8
29	9.9	29.8	9.9	23.5	7.9	29.3
30	9.8	29.5	8.0	23.9	7.2	28.9
31	10.2	29.5			7.2	27.3
MEANS	11.0	26.9	9.8	26.4	8.1	27.1
OBSVNS.	31	31	29	29	30	30
YRLY.MEANS					11.0	25.4
MAXIMUM	11.8	29.8	10.4	30.0	9.2	30.0
MINIMUM	9.8	21.7	8.0	15.8	6.5	22.0
STD.DEV.	.47	2.64	.48	3.36	.76	2.06

Annual Graphs of the 7-day

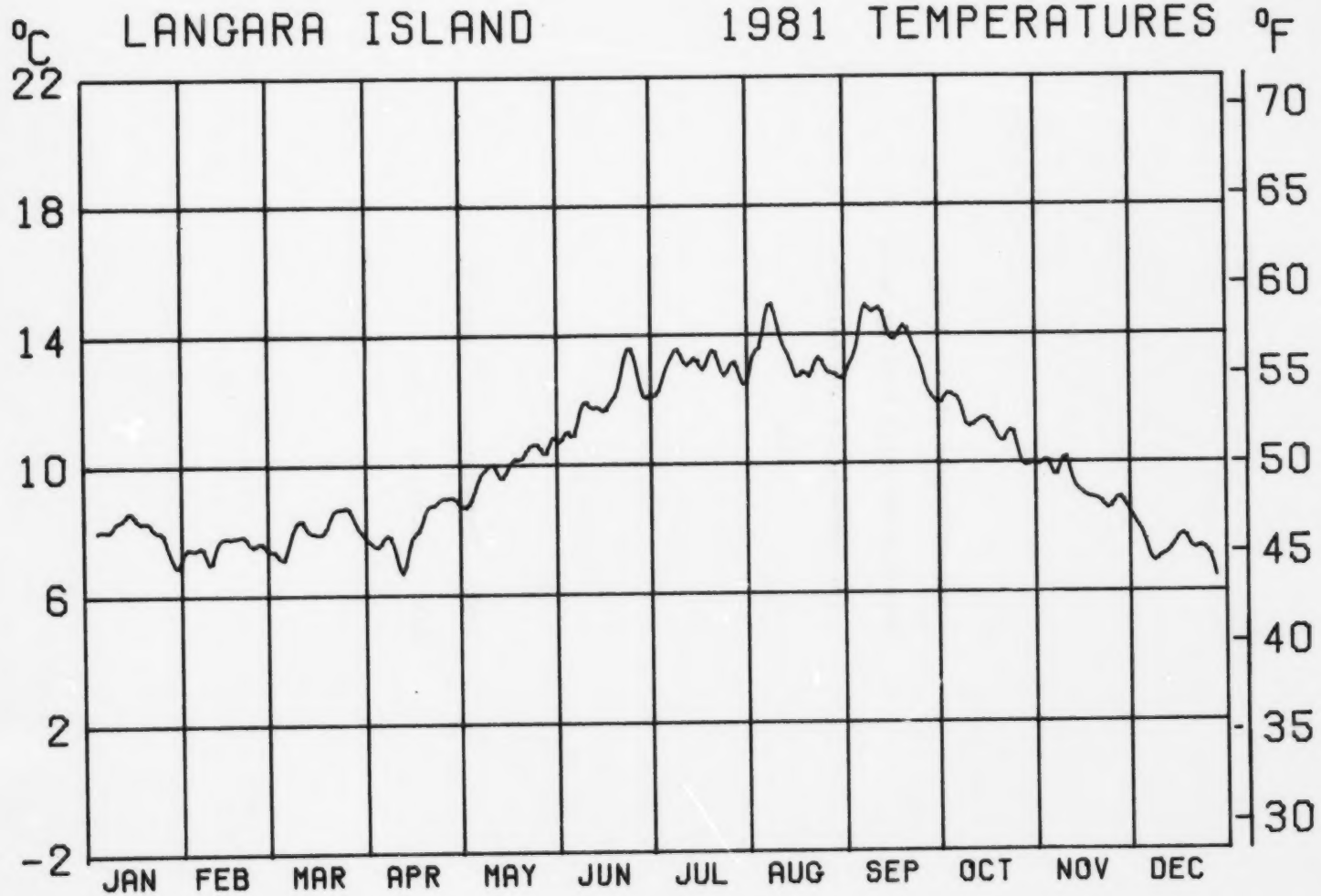
Normally-Weighted Running Means

for Temperature and Salinity

1981

TEMP: Temperature (^{o}C and ^{o}F)

SAL: Salinity (^{o}/oo)


LANGARA ISLAND
1981 TEMPERATURES
°C
°F
22
18
14
10
6
2
-2
70
65
60
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45
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JAN
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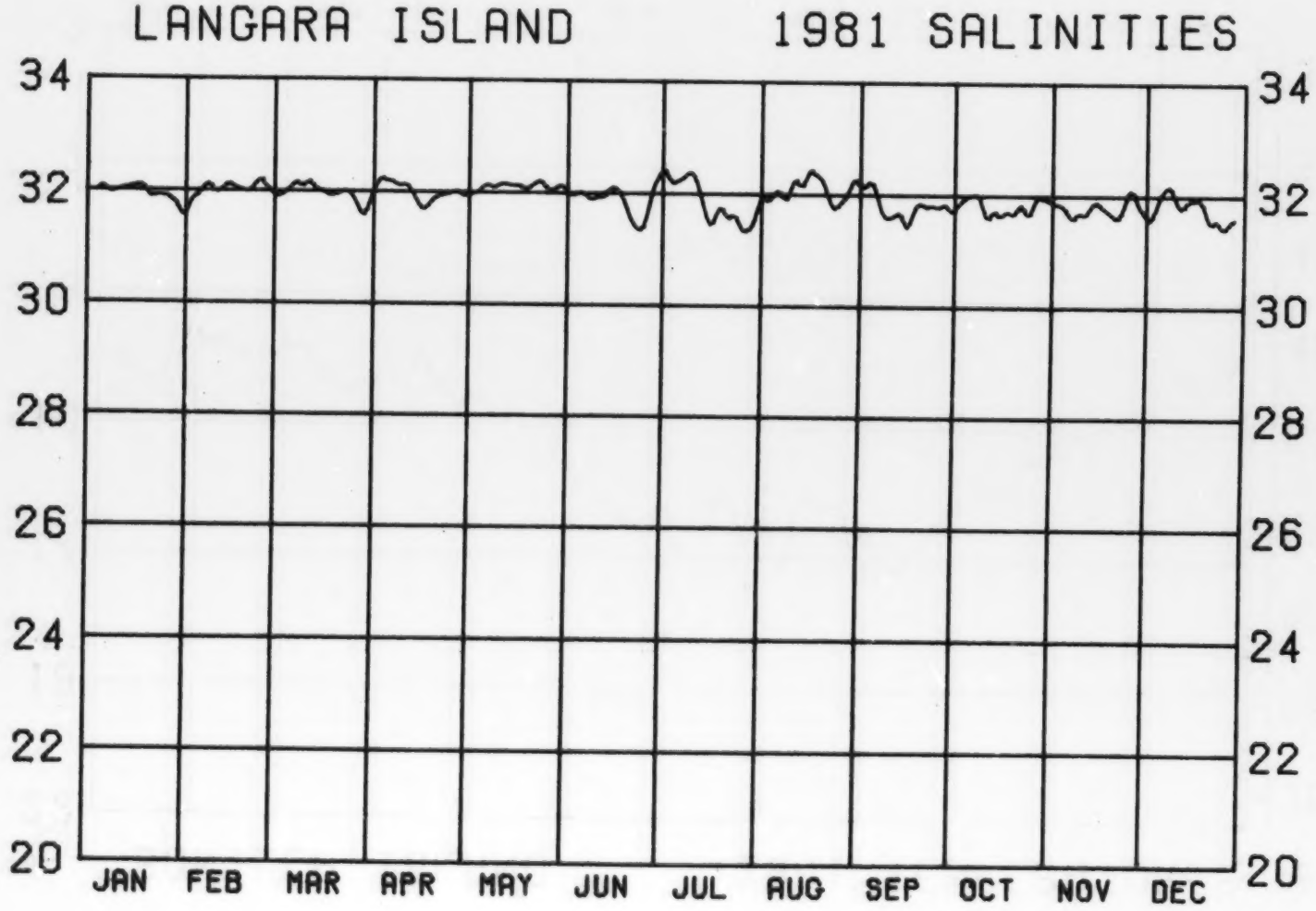
JUN
JUL
AUG
SEP
OCT
NOV
DEC


LANGARA ISLAND
1981 SALINITIES
34
32
30
28
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24
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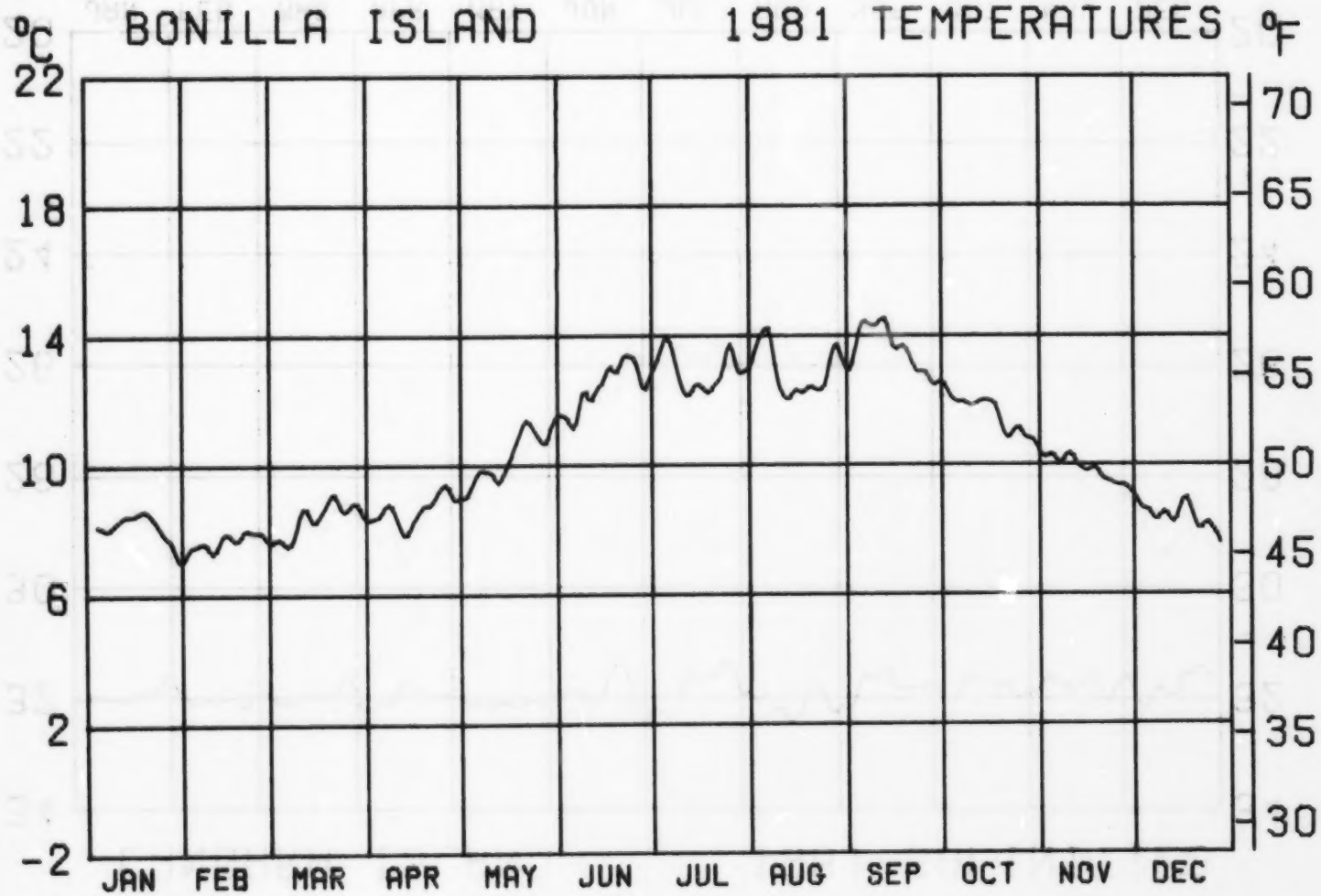
20
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC


BONILLA ISLAND 1981 TEMPERATURES
°C
°F
22
18
14
10
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-2
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JAN
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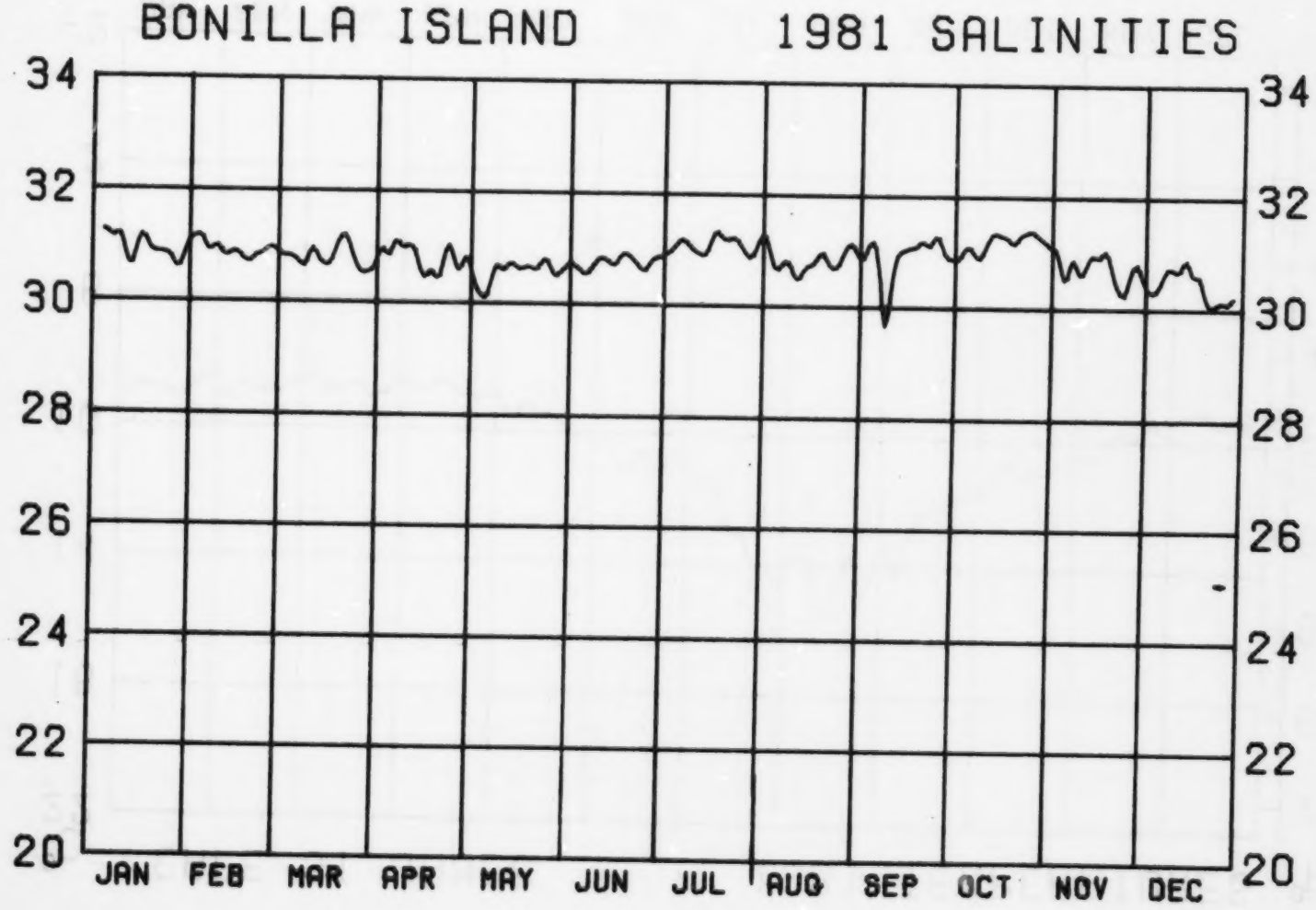
AUG
SEP
OCT
NOV
DEC


BONILLA ISLAND
1981 SALINITIES
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JAN
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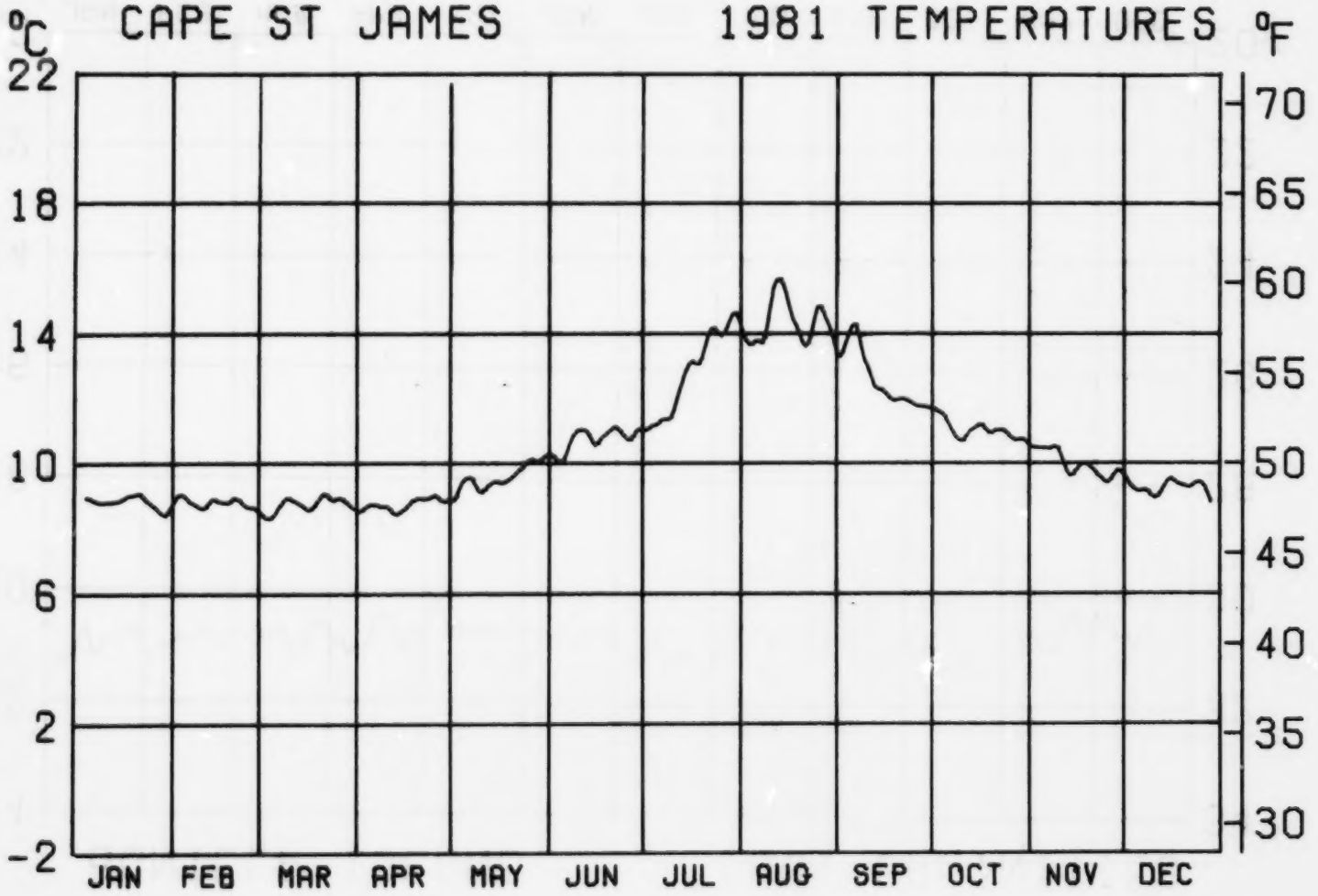
JUN
JUL
AUG
SEP
OCT
NOV
DEC


°C
CAPE ST JAMES
1981 TEMPERATURES
°F
22
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14
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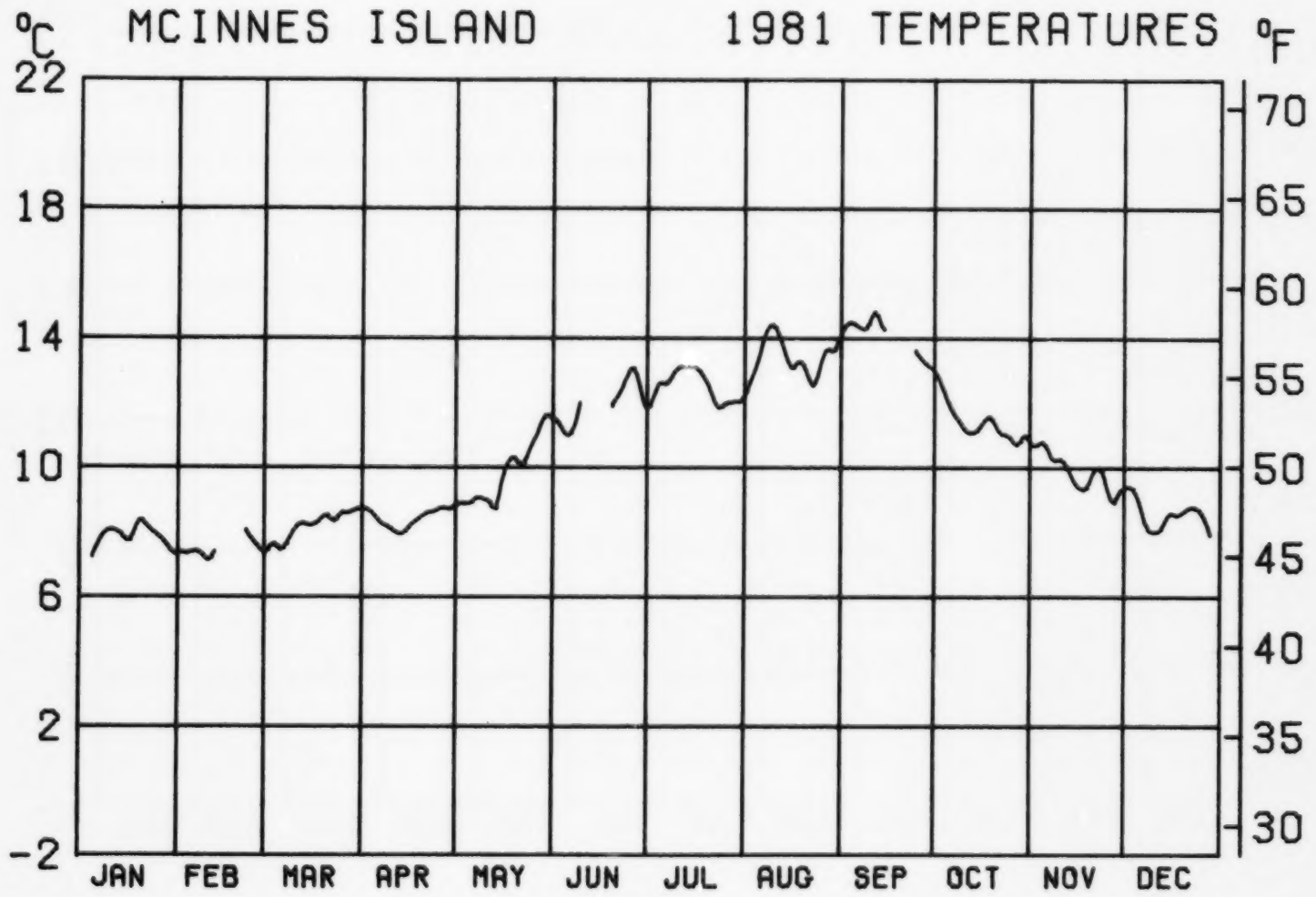
OCT
NOV
DEC


°C
MCINNES ISLAND
1981 TEMPERATURES
°F
22
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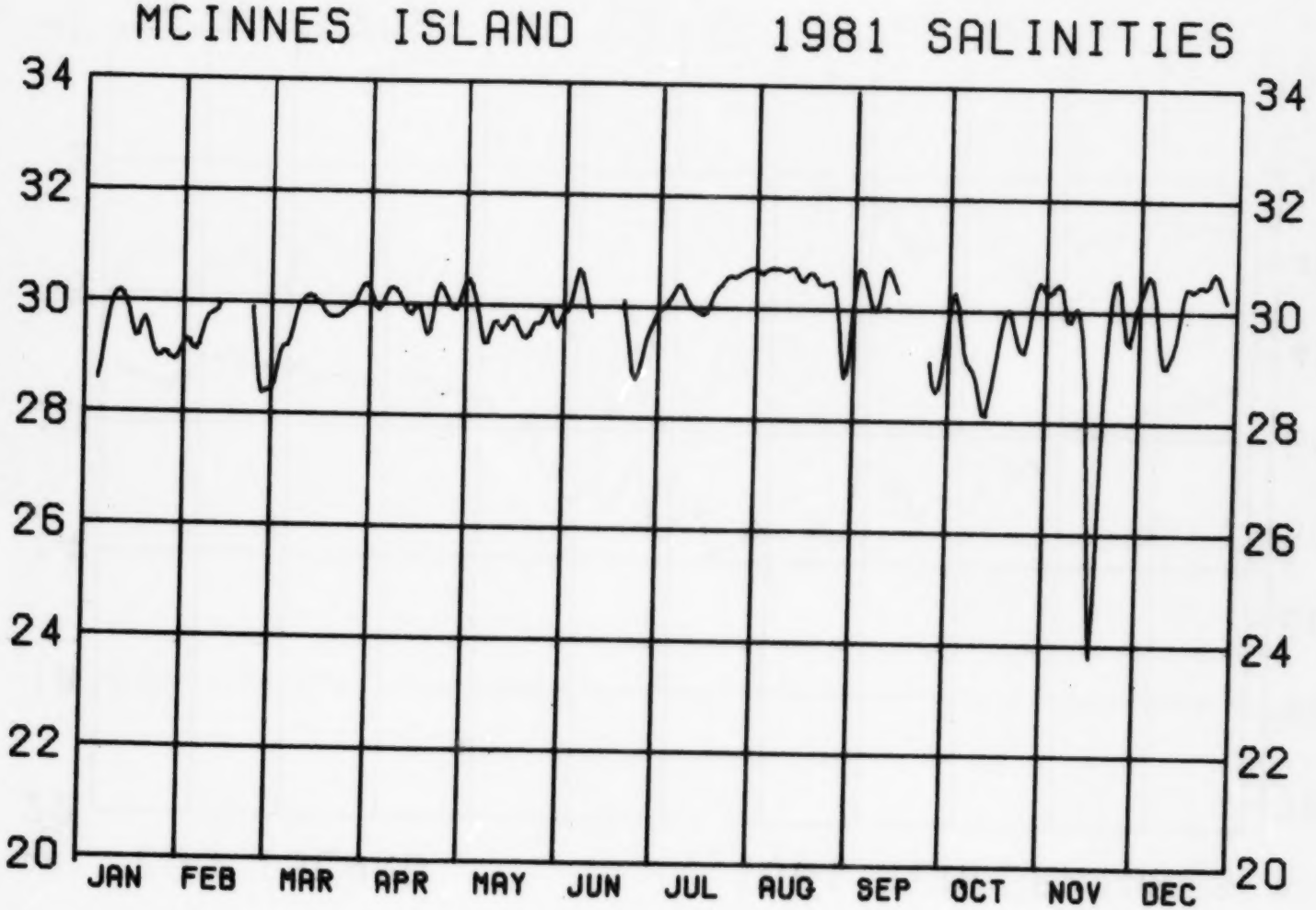
DEC


MCINNES ISLAND
1981 SALINITIES
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32
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JAN
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OCT
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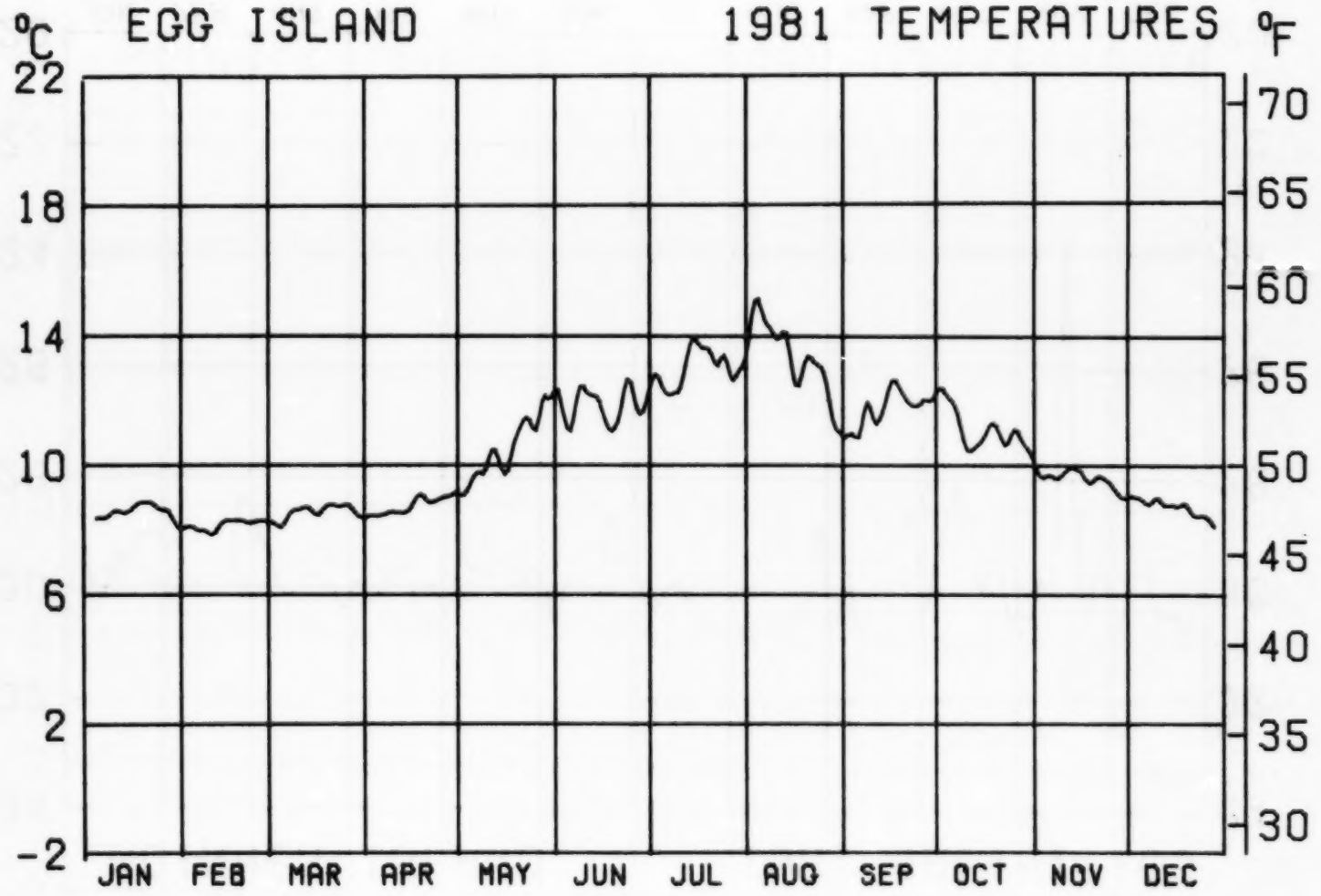
DEC


°C
EGG ISLAND
1981 TEMPERATURES
°F
22
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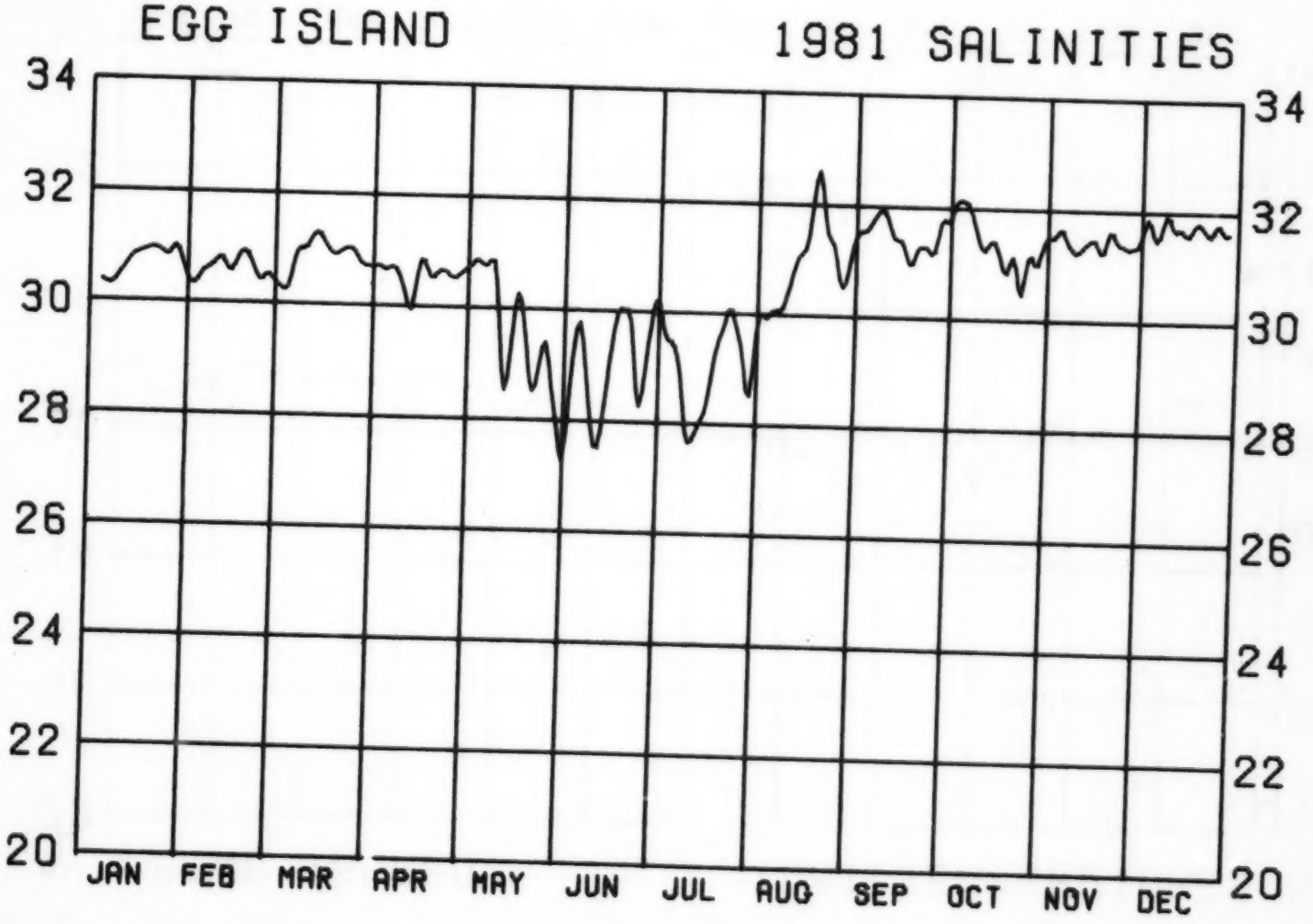
NOV
DEC


EGG ISLAND
1981 SALINITIES
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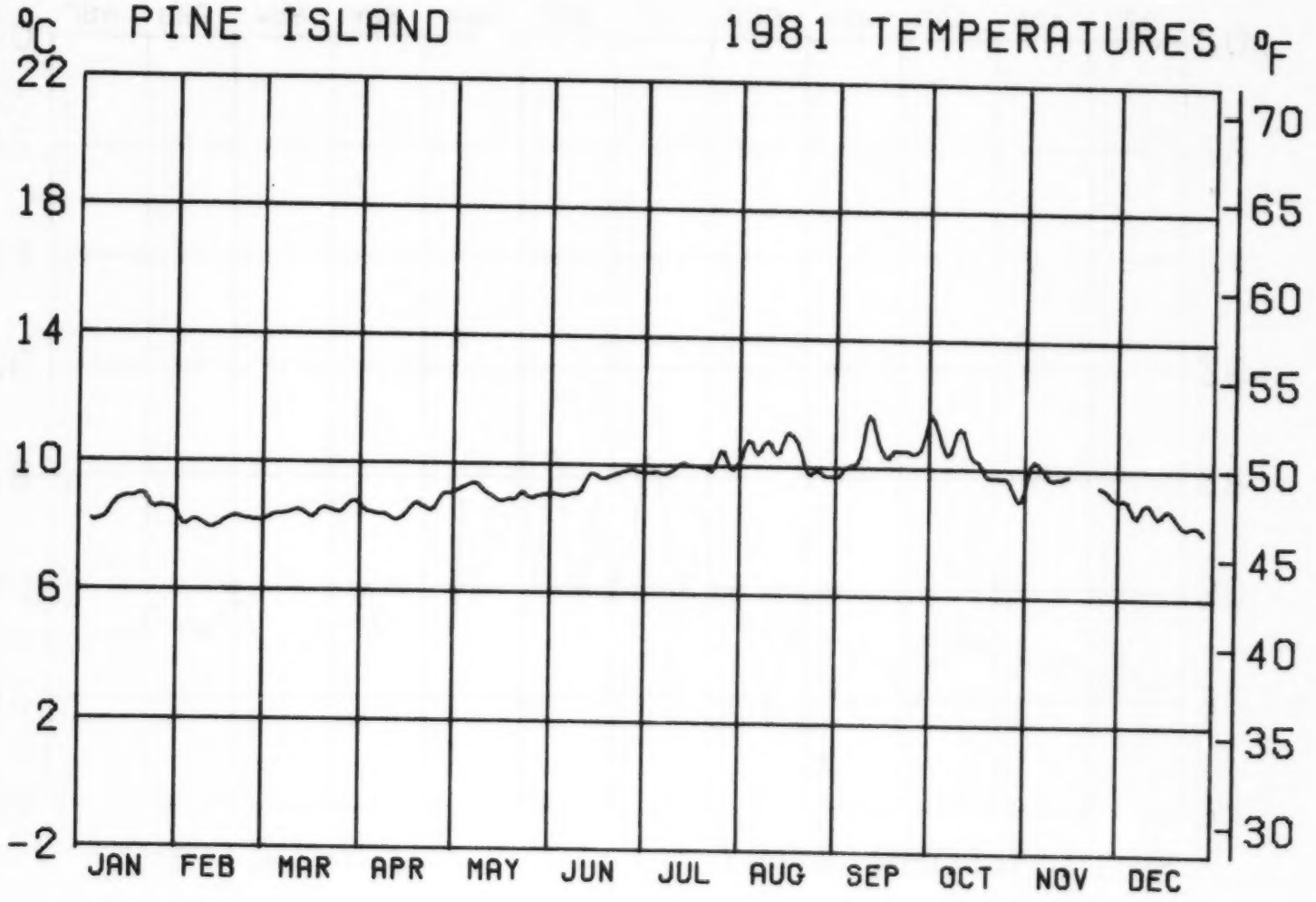
DEC


°C
PINE ISLAND
1981 TEMPERATURES
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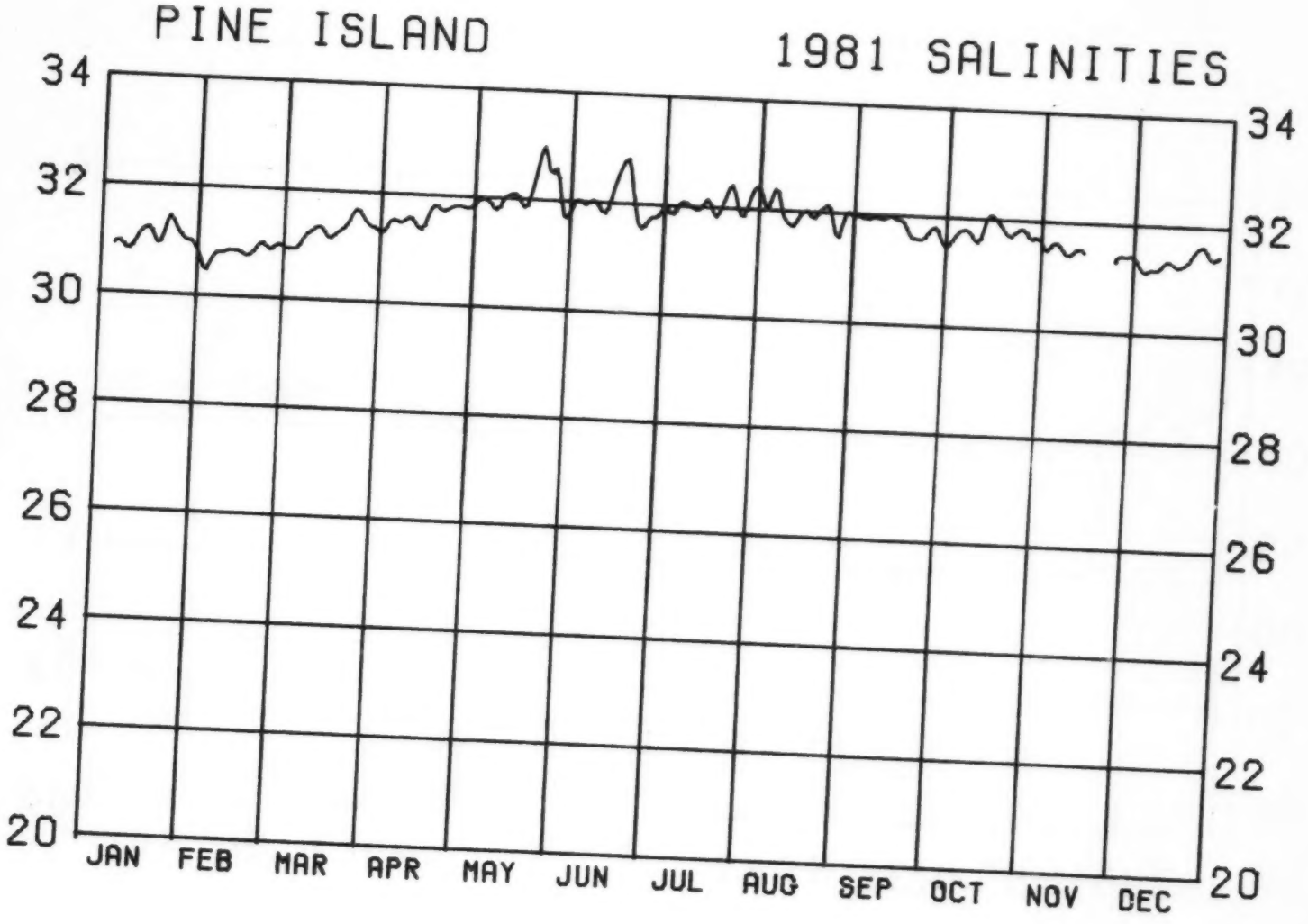
DEC


PINE ISLAND
1981 SALINITIES
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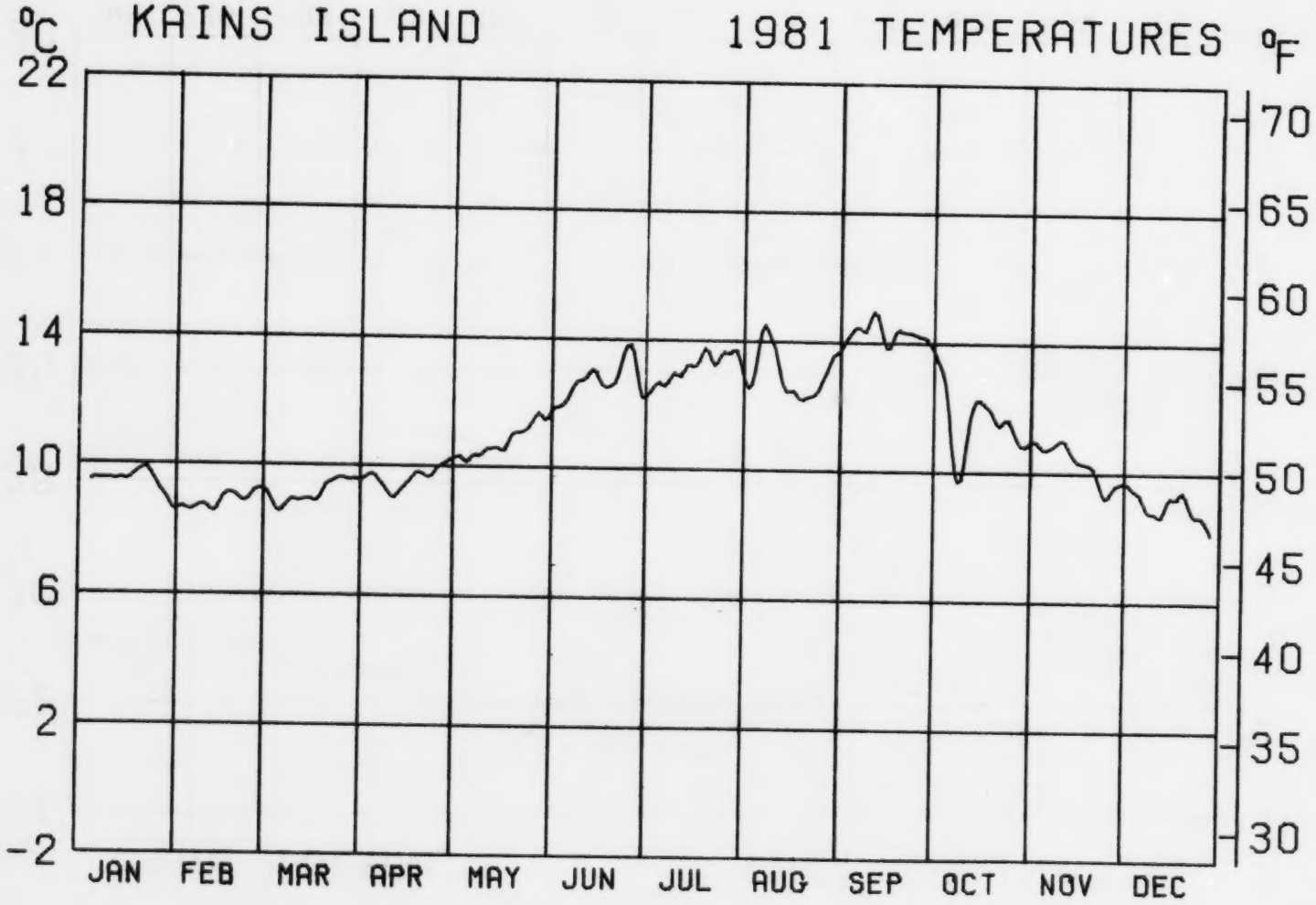
°C
KAINS ISLAND
1981 TEMPERATURES
°F
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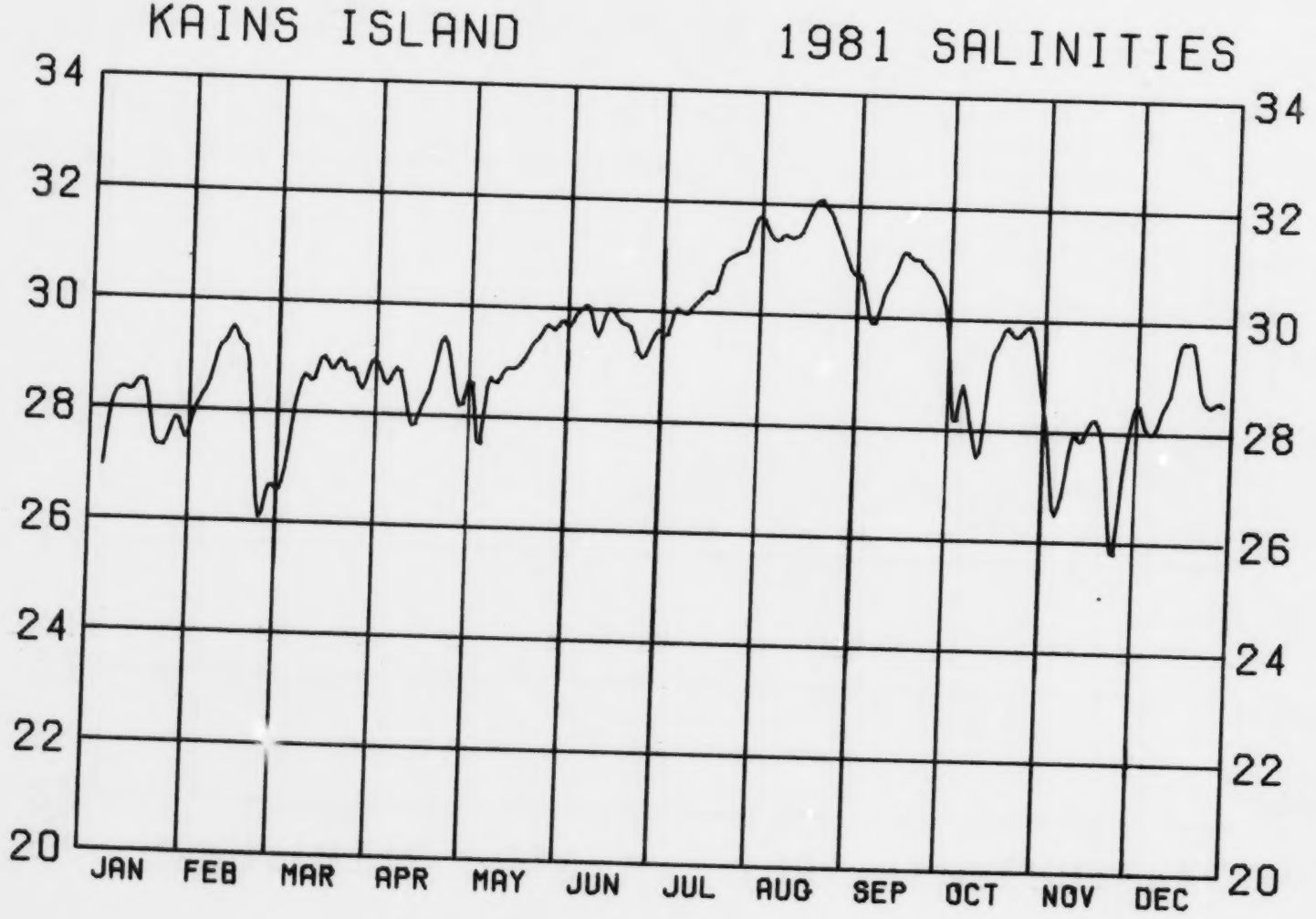
KAINS ISLAND
1981 SALINITIES
34
32
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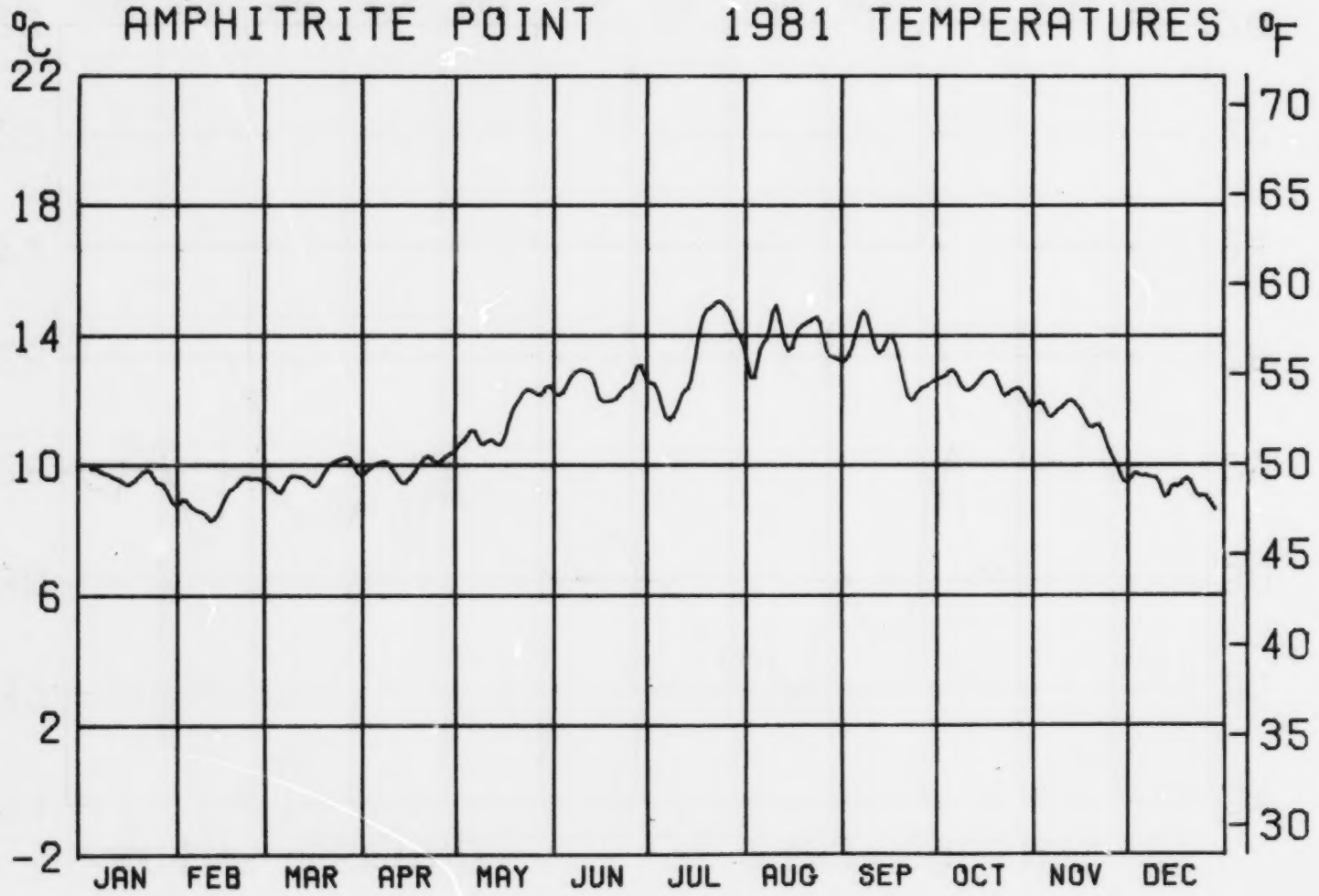
AMPHITRITE POINT 1981 TEMPERATURES
°C
°F
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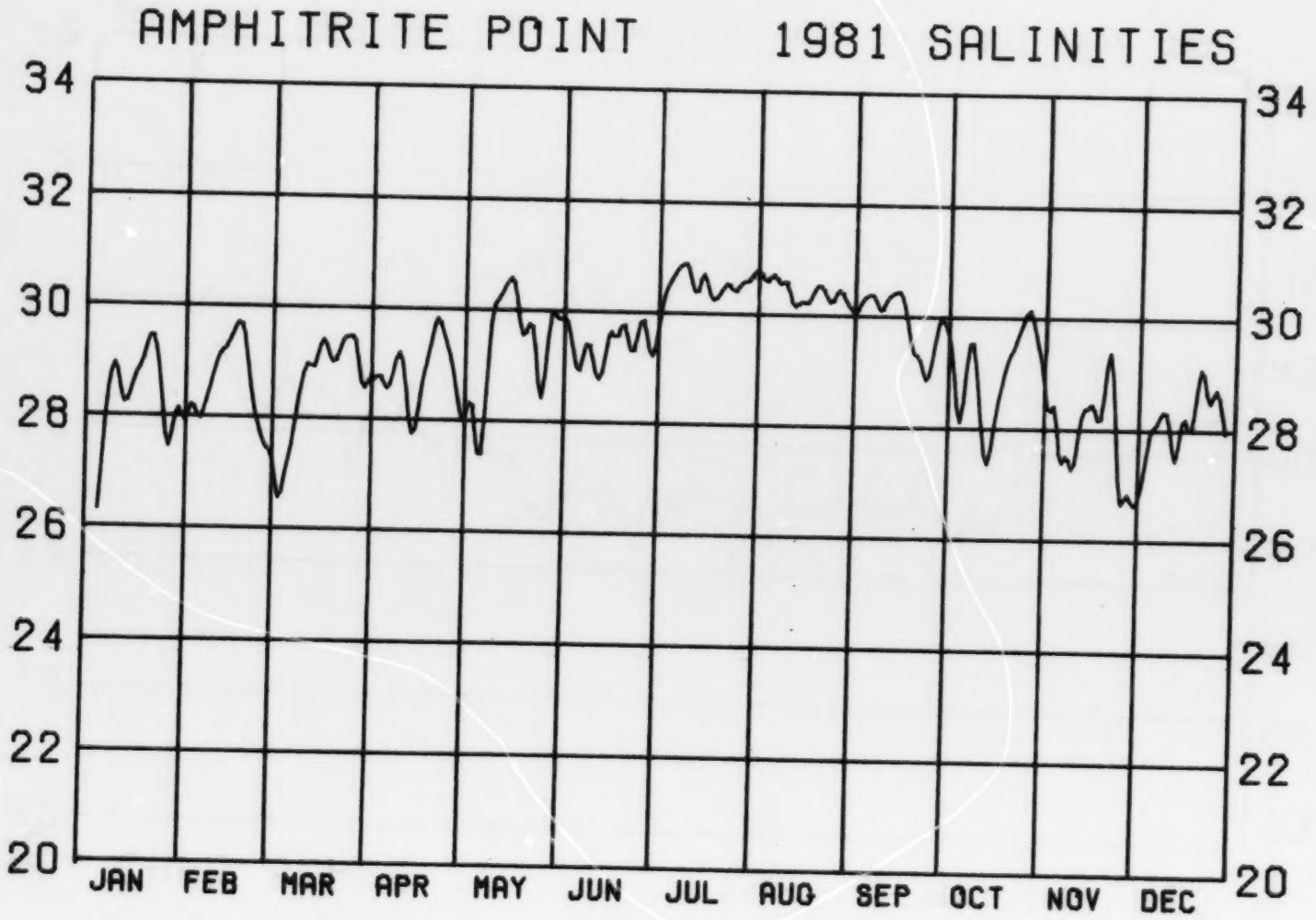
AMPHITRITE POINT 1981 SALINITIES
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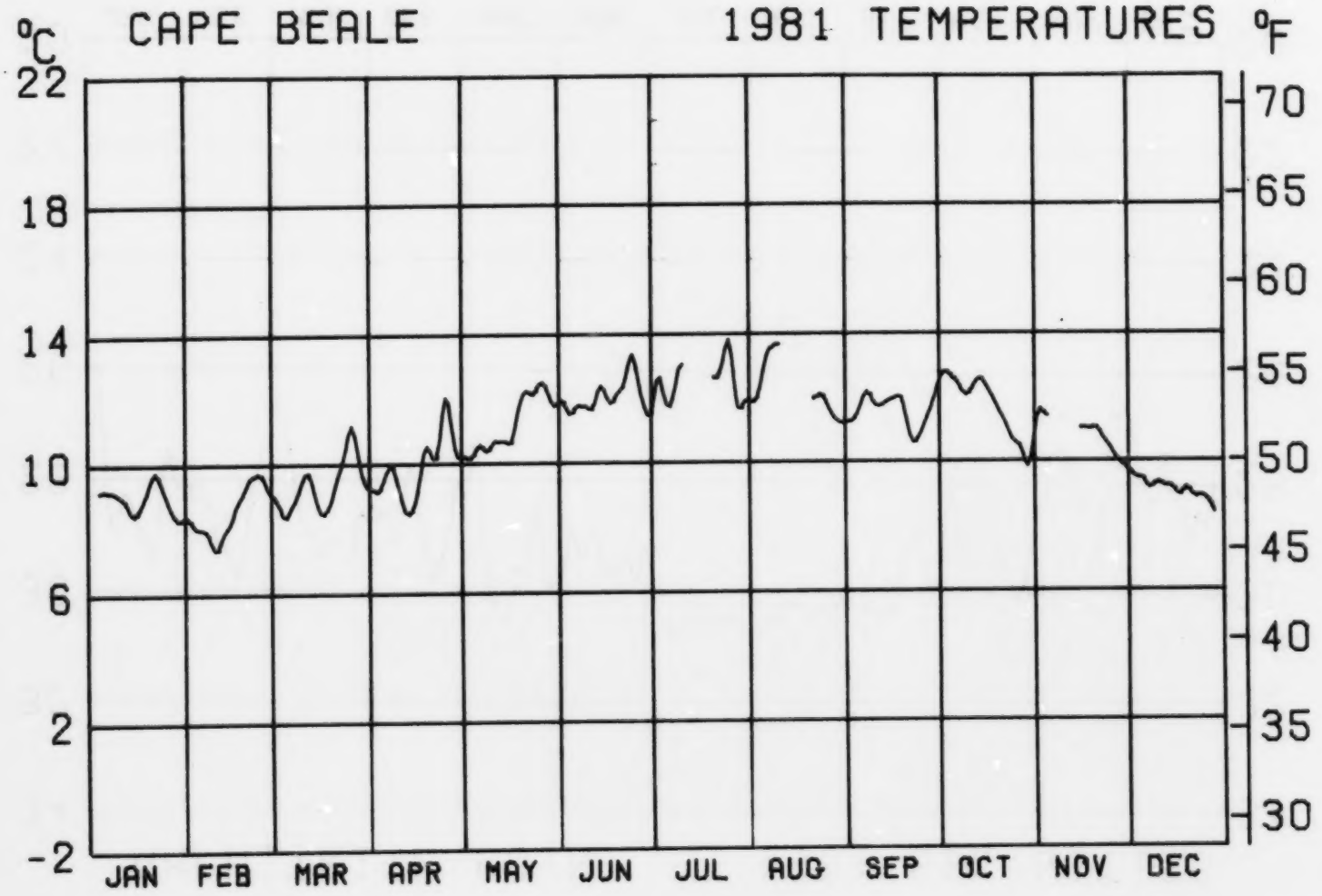
°C
CAPE BEALE
1981 TEMPERATURES
°F
22
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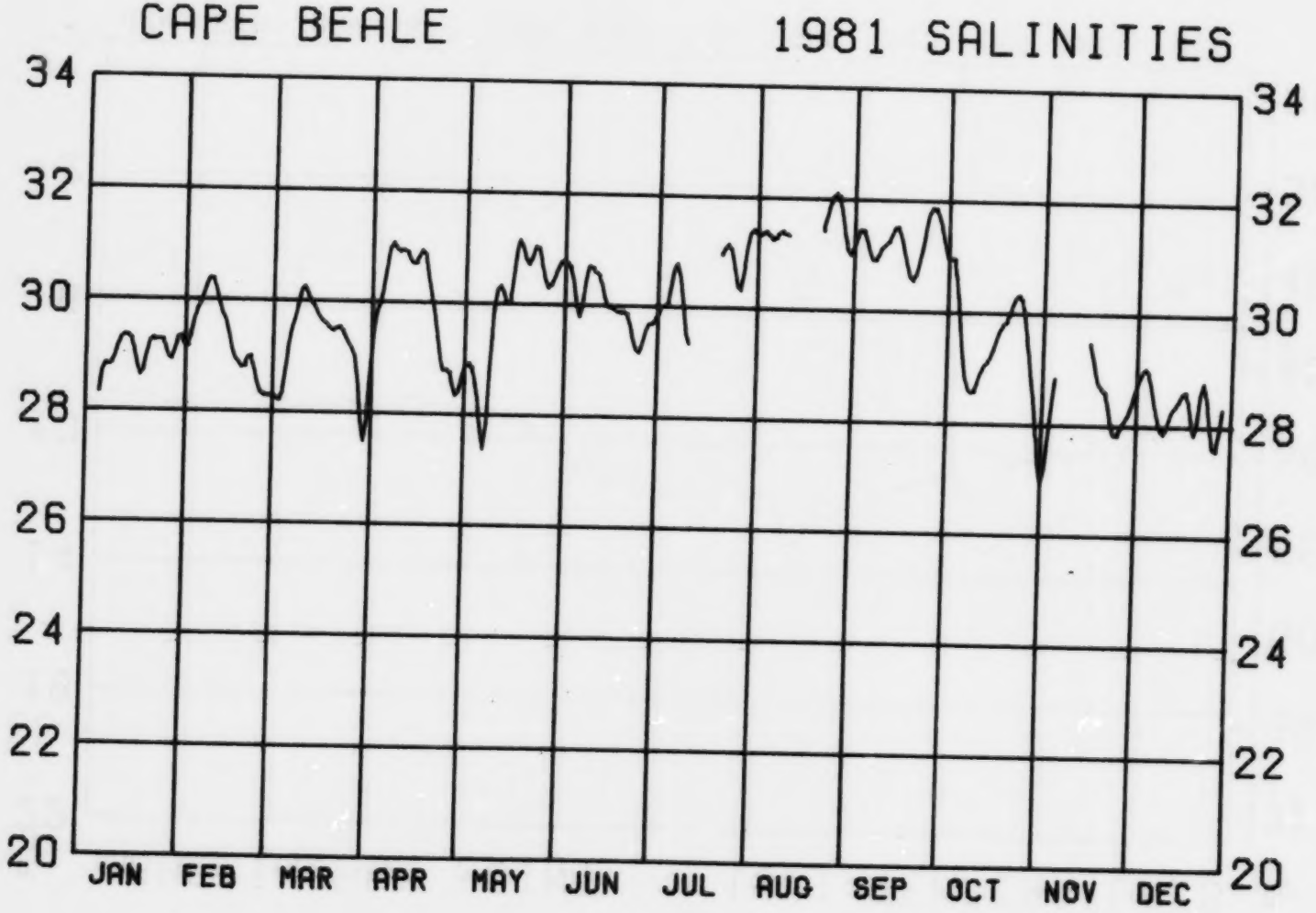
CAPE BEALE
1981 SALINITIES
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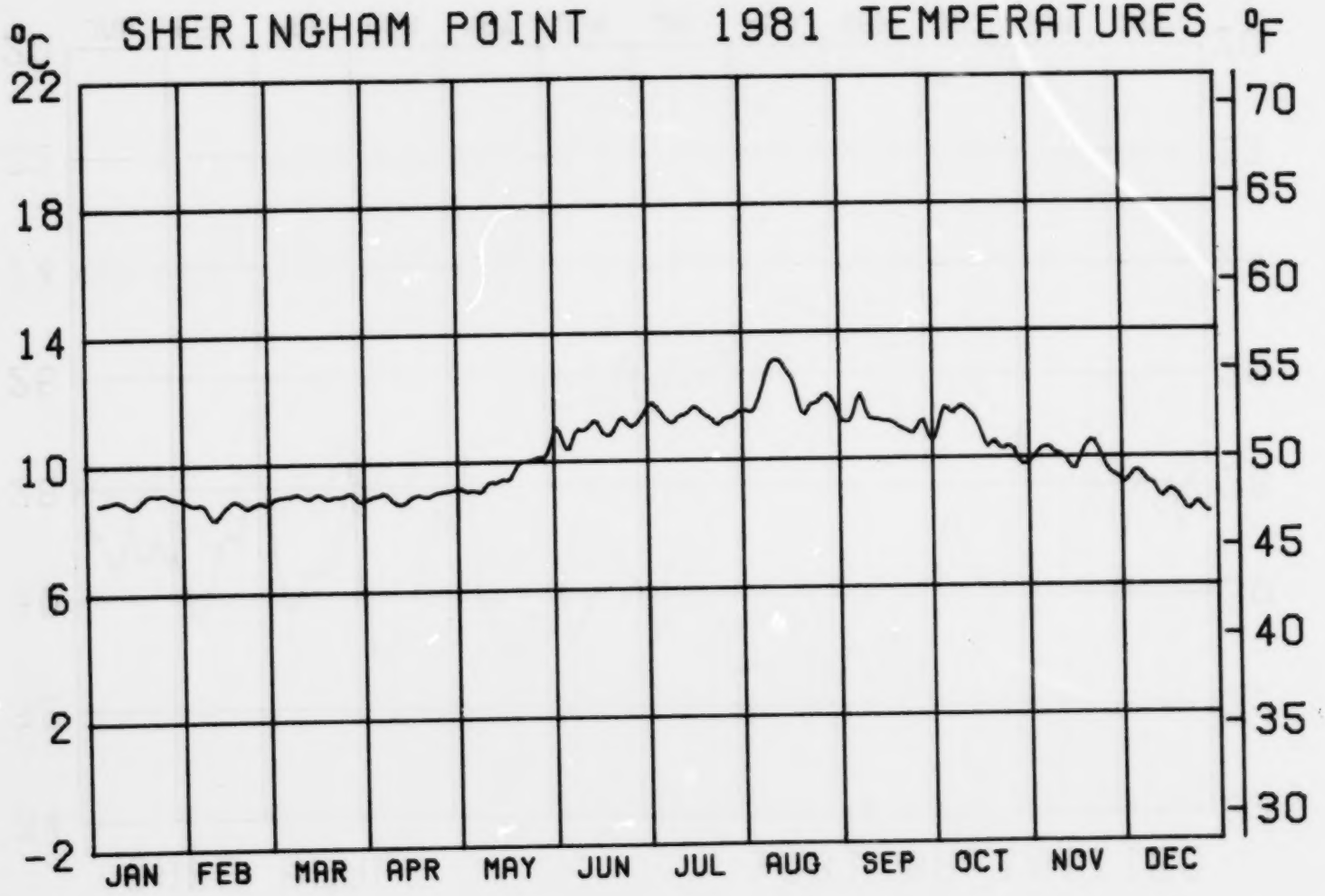
DEC


SHERINGHAM POINT 1981 TEMPERATURES
°C
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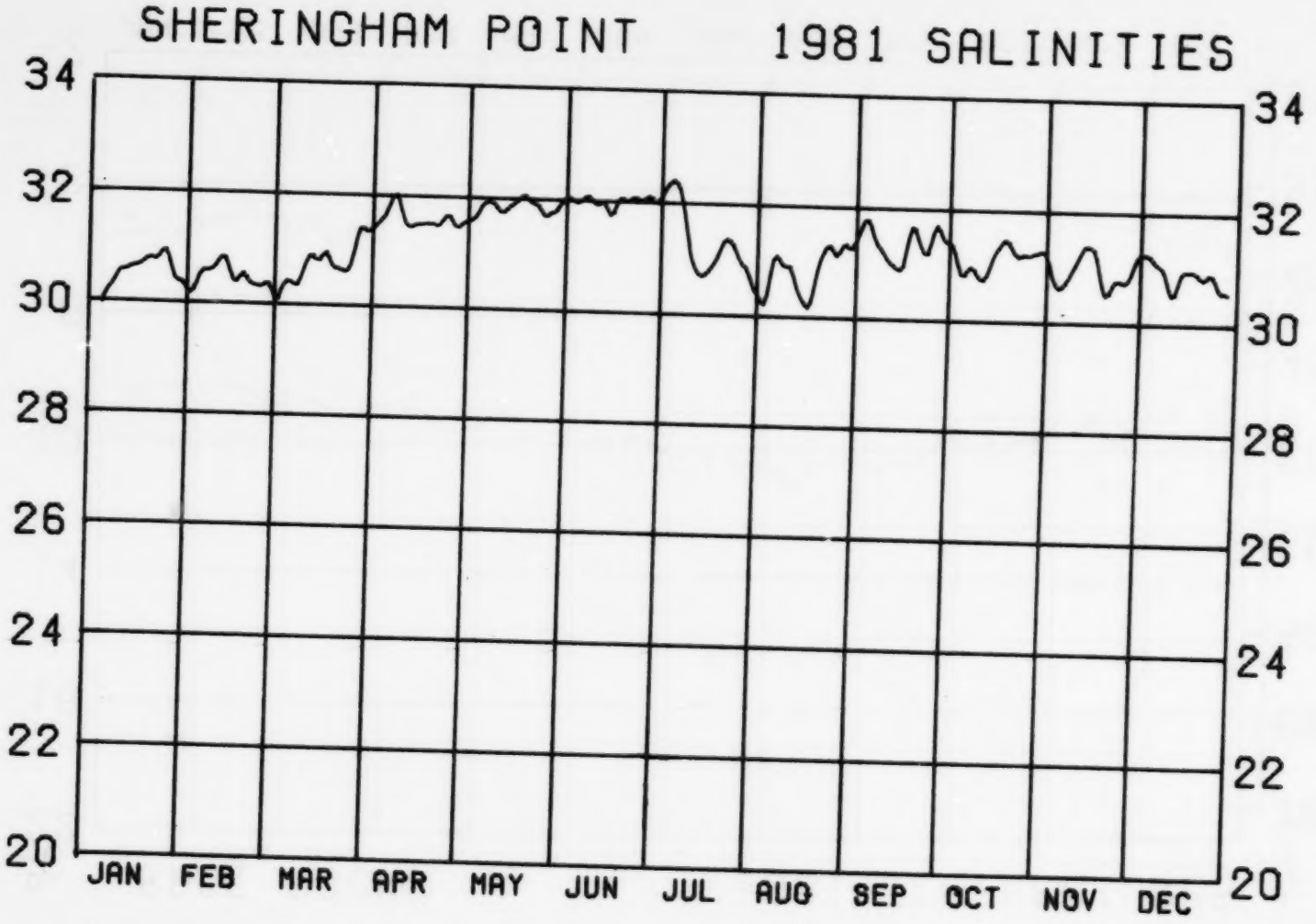
SHERINGHAM POINT 1981 SALINITIES
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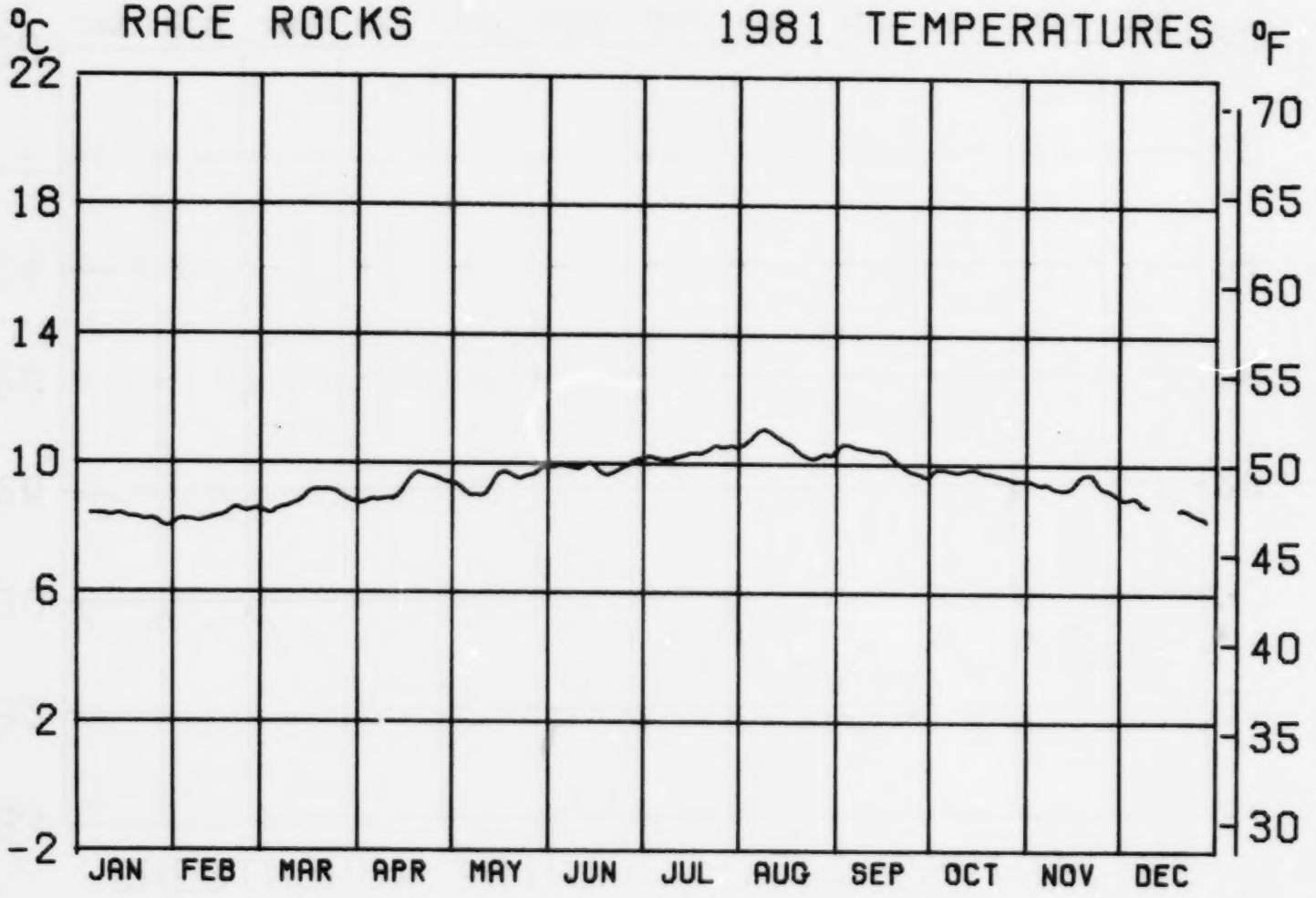
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC


°C
RACE ROCKS
1981 TEMPERATURES
°F
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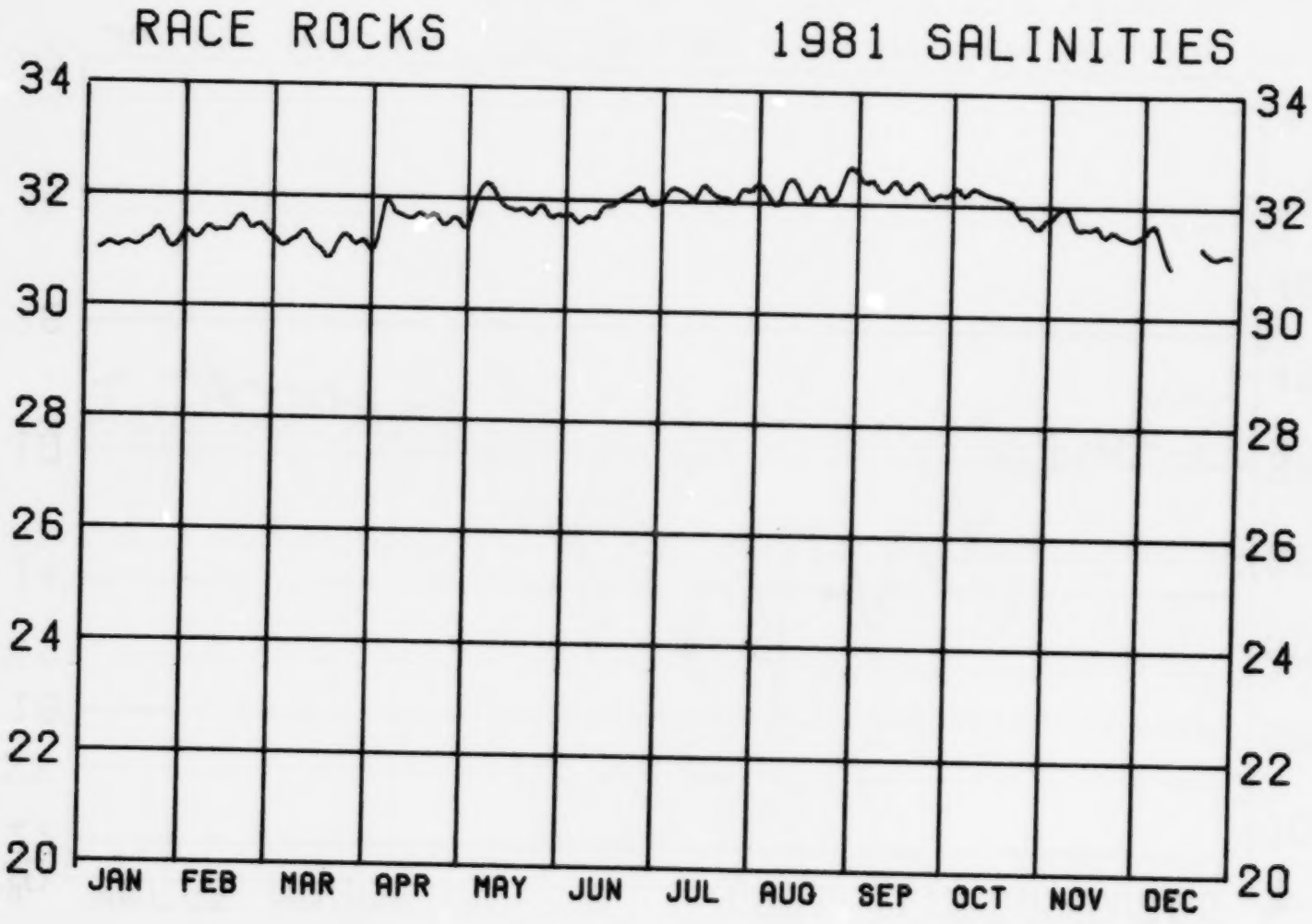
RACE ROCKS
1981 SALINITIES
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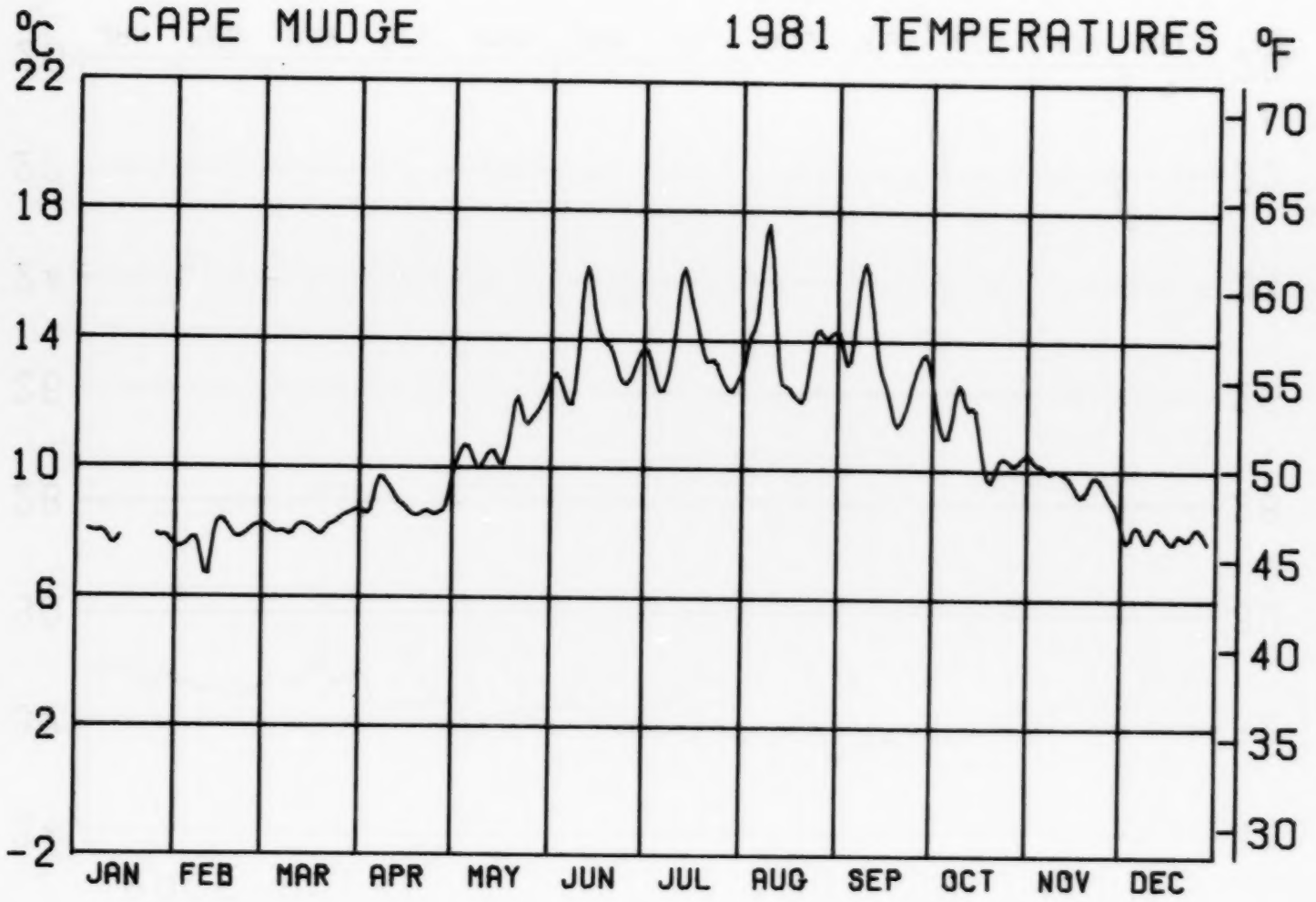
DEC


°C
CAPE MUDGE
1981 TEMPERATURES
°F
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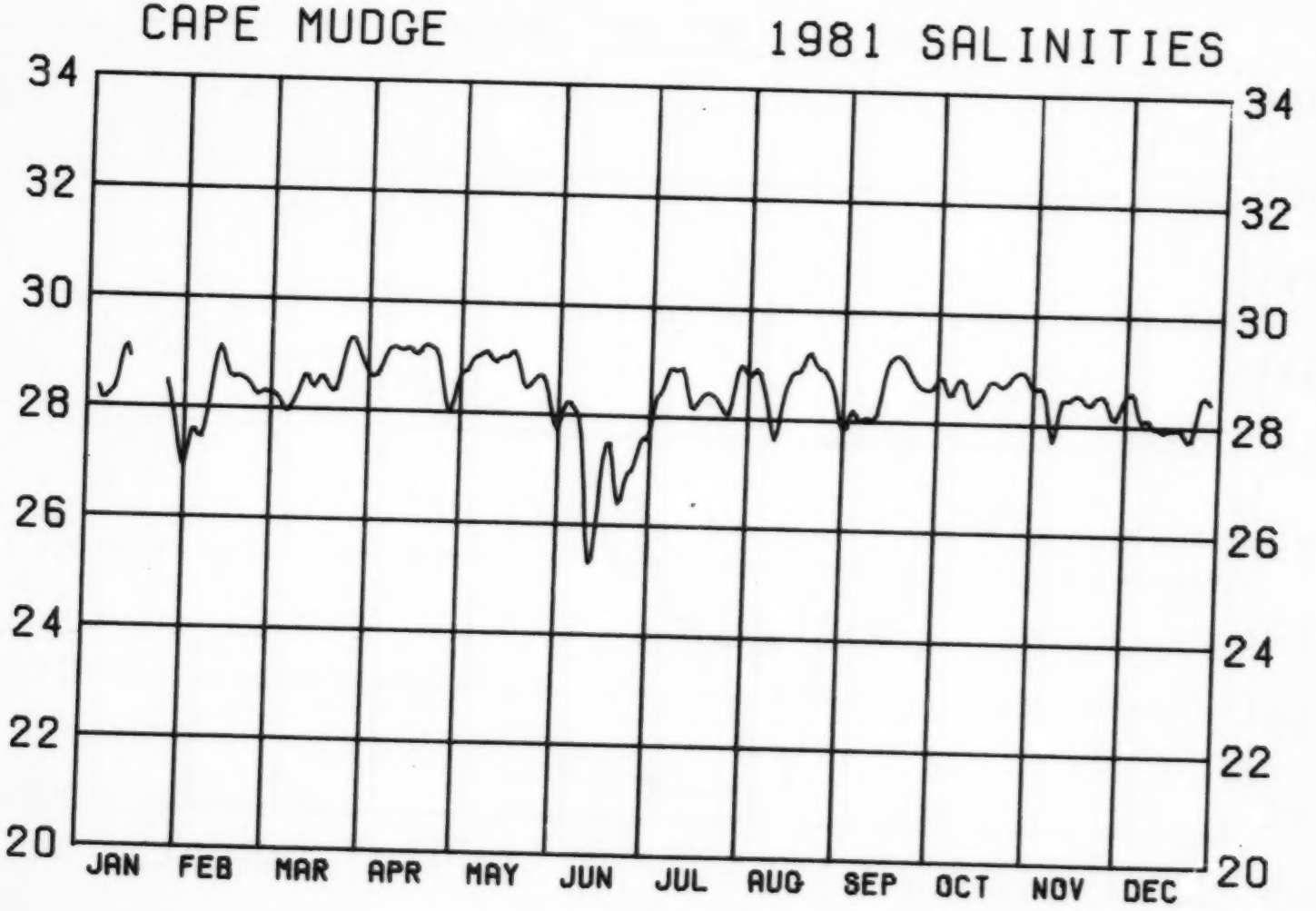
DEC


CAPE MUDGE
1981 SALINITIES
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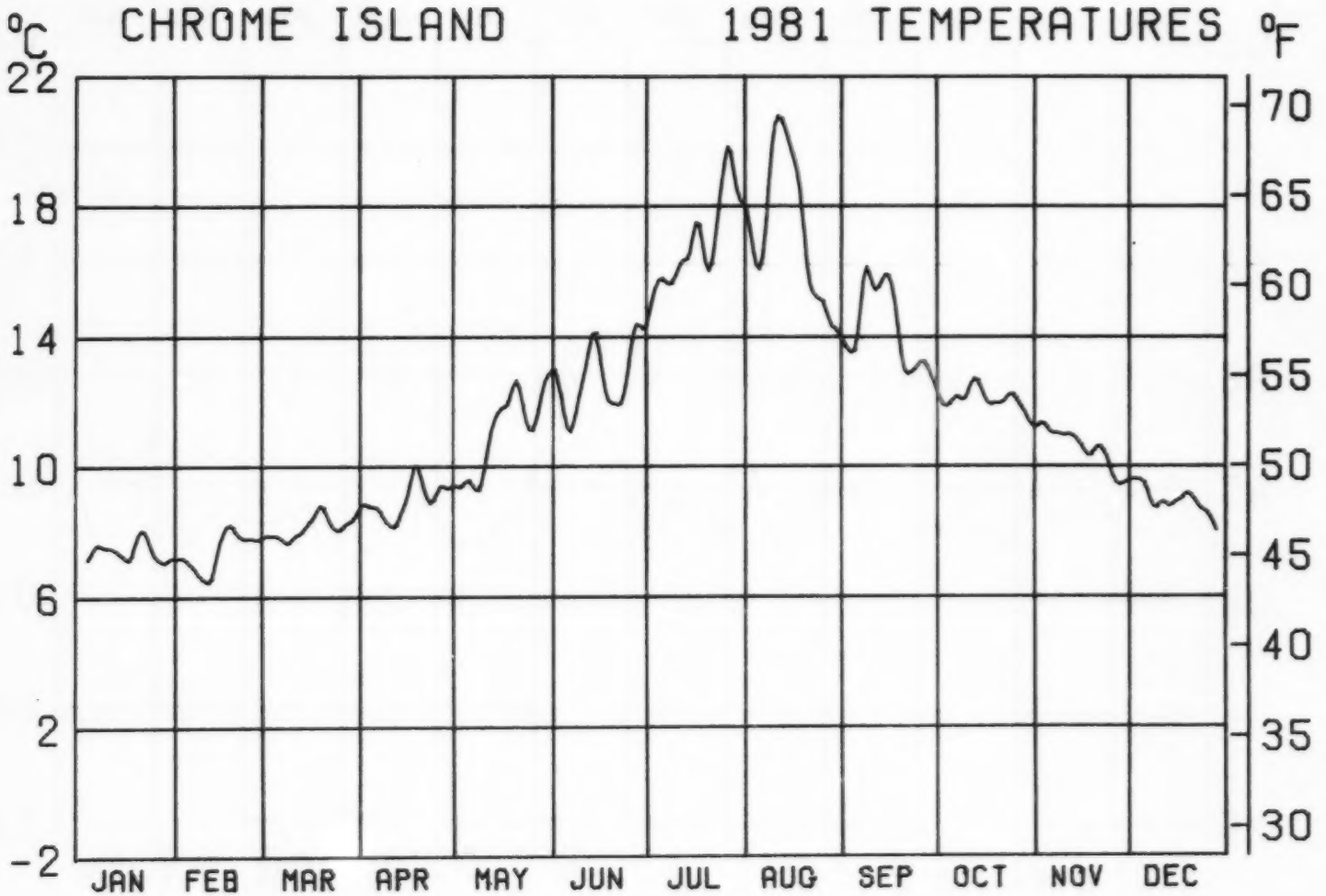
°C
CHROME ISLAND
1981 TEMPERATURES
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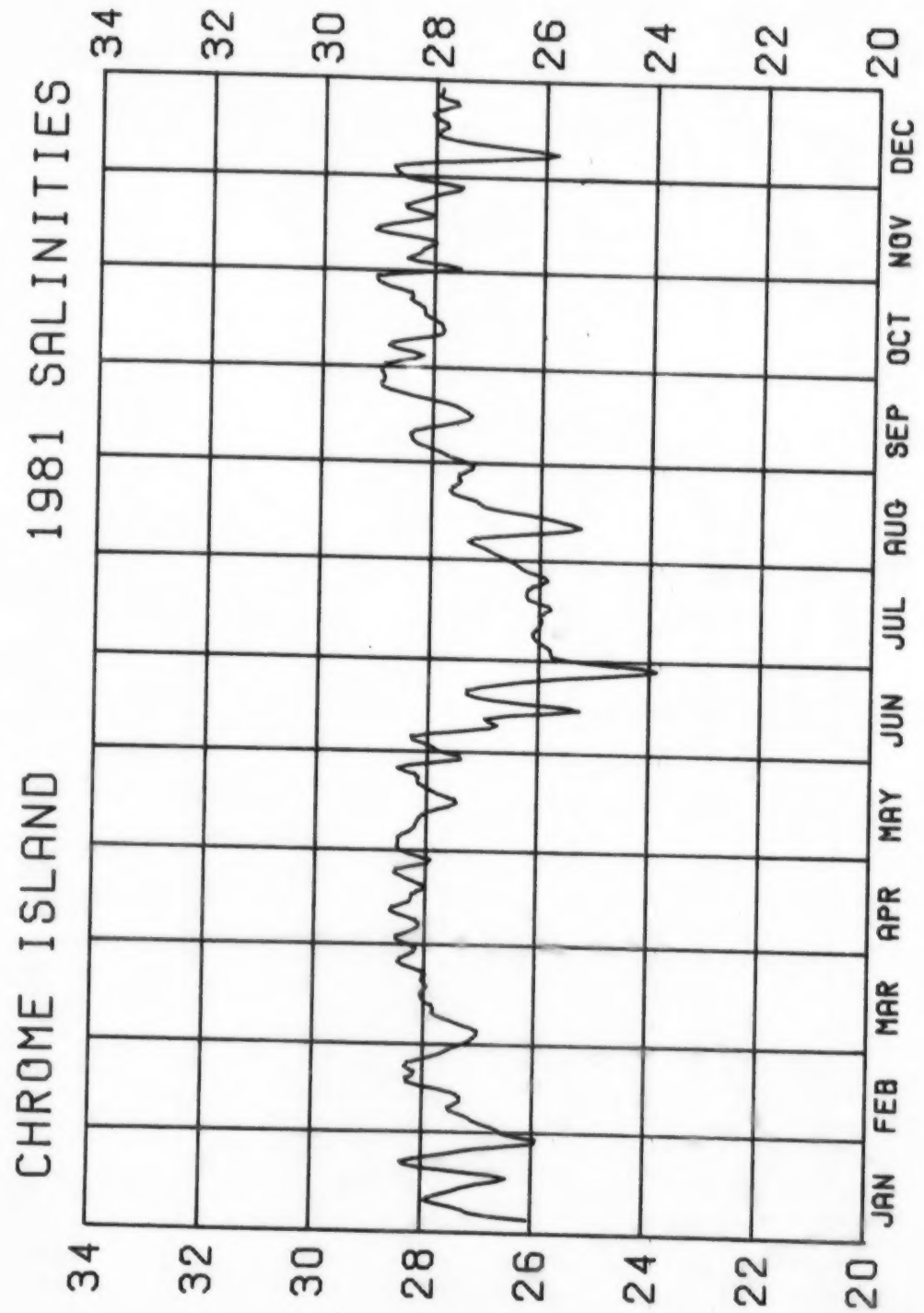
DEC


CHROME ISLAND
1981 SALINITIES
34
32
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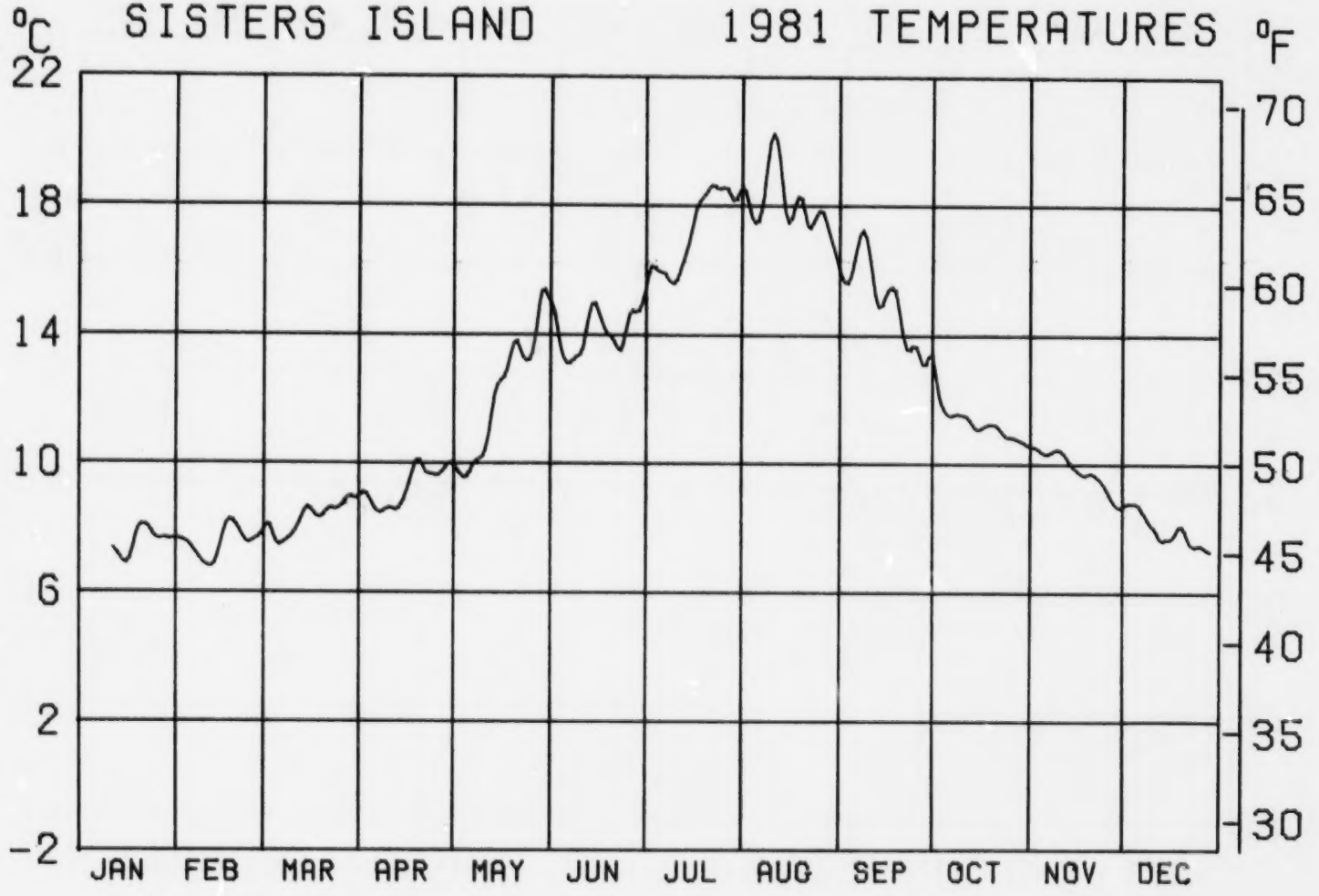
DEC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SISTERS ISLAND
1981 TEMPERATURES
°F
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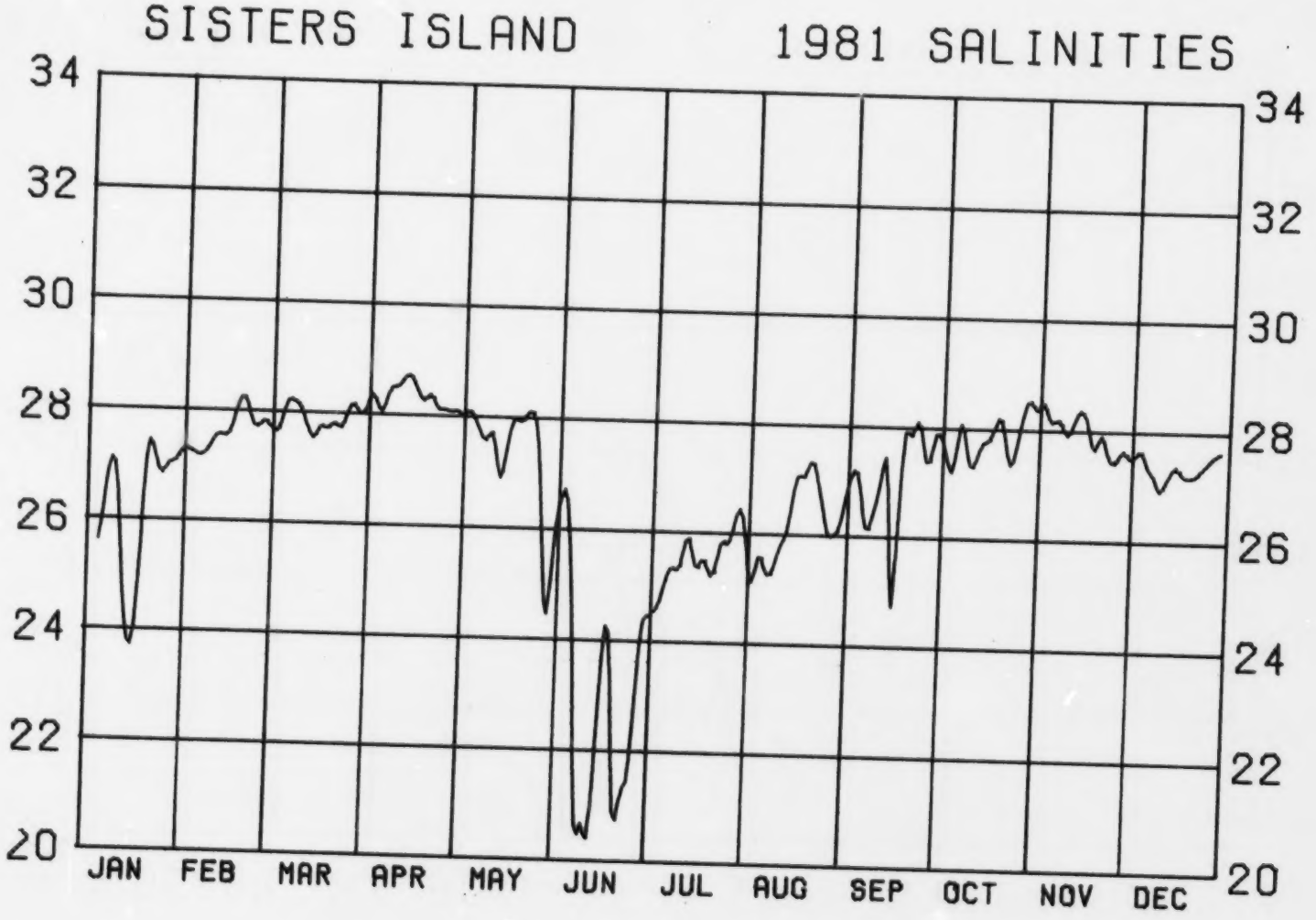
SISTERS ISLAND
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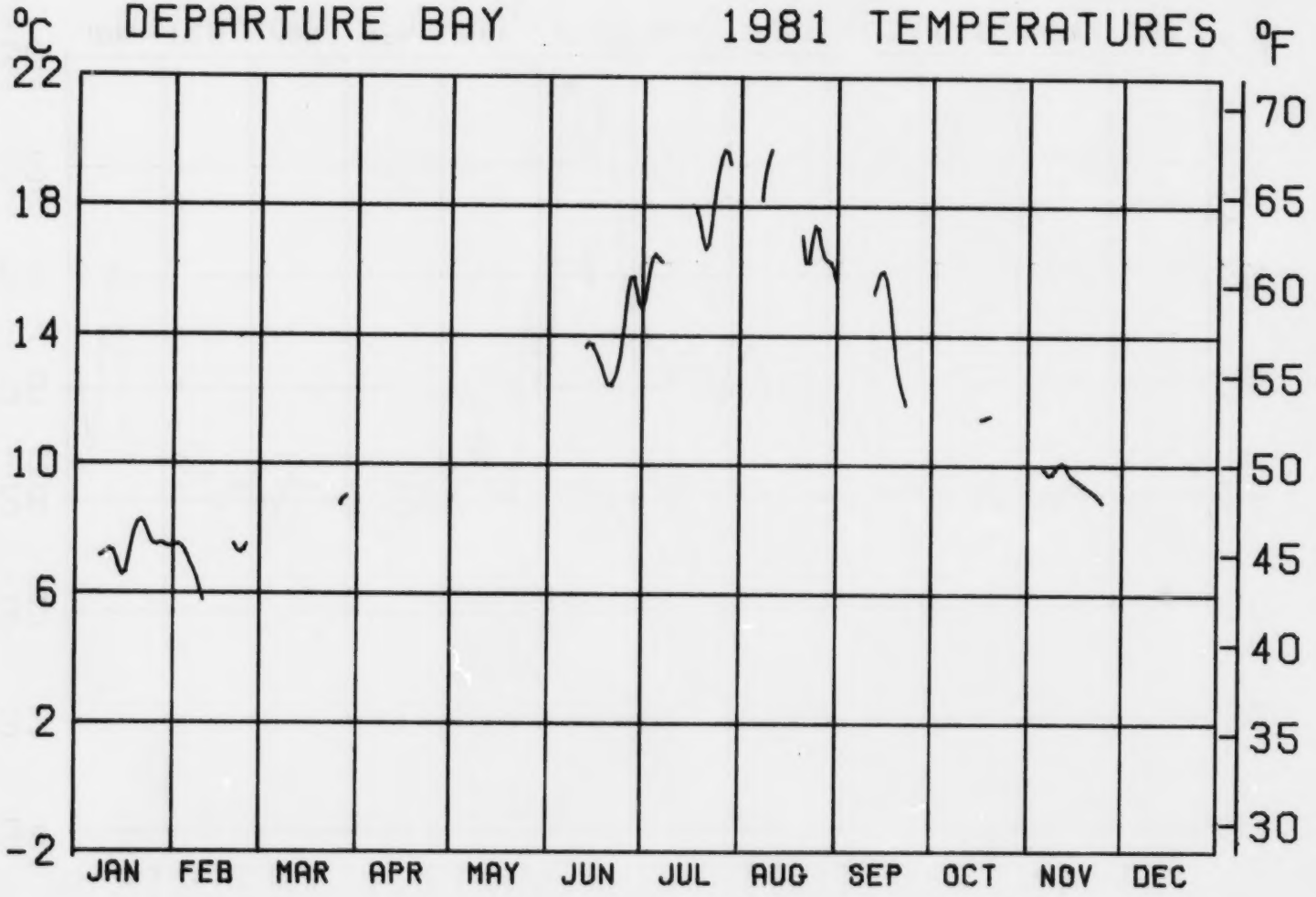
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DEPARTURE BAY
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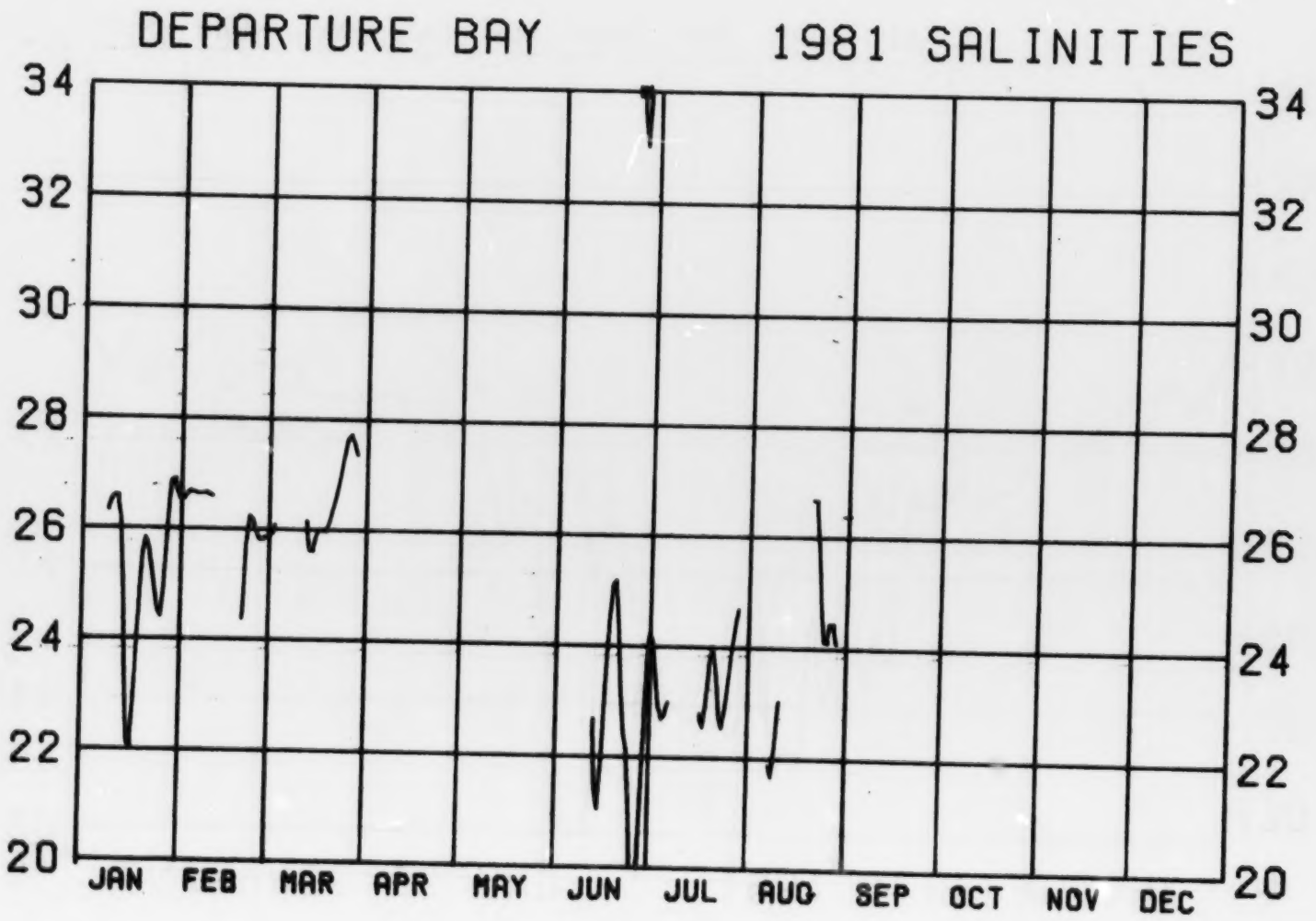
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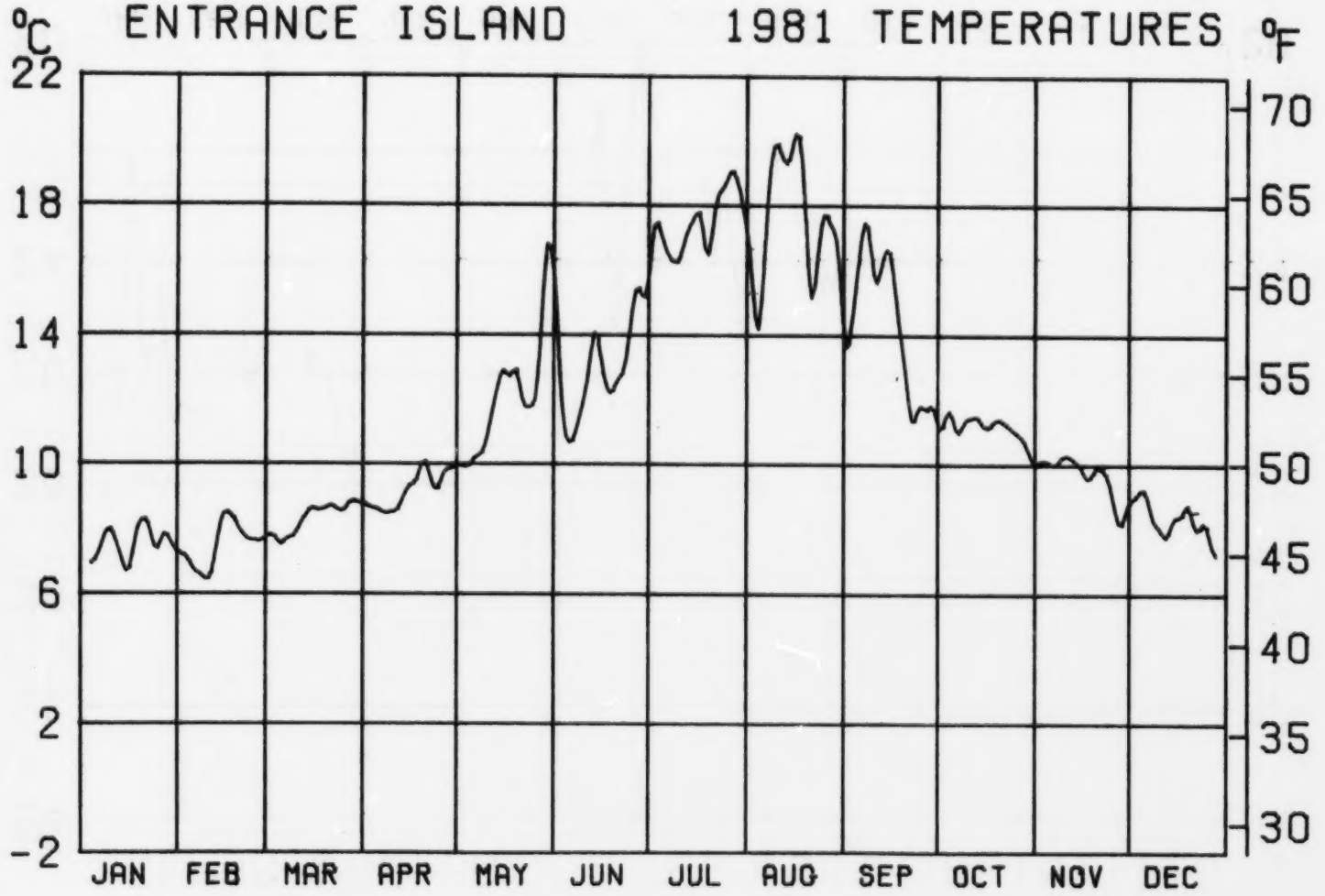
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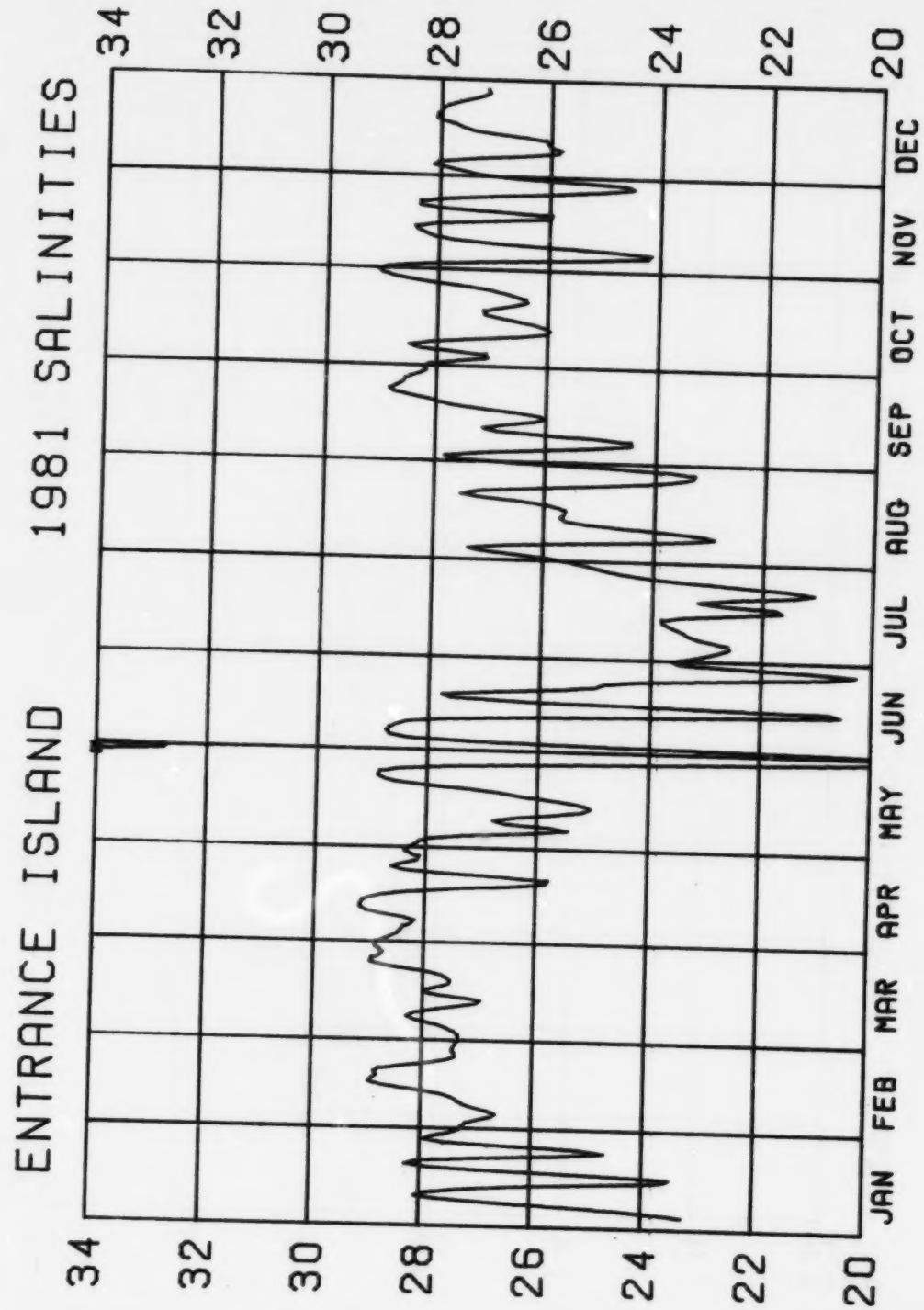
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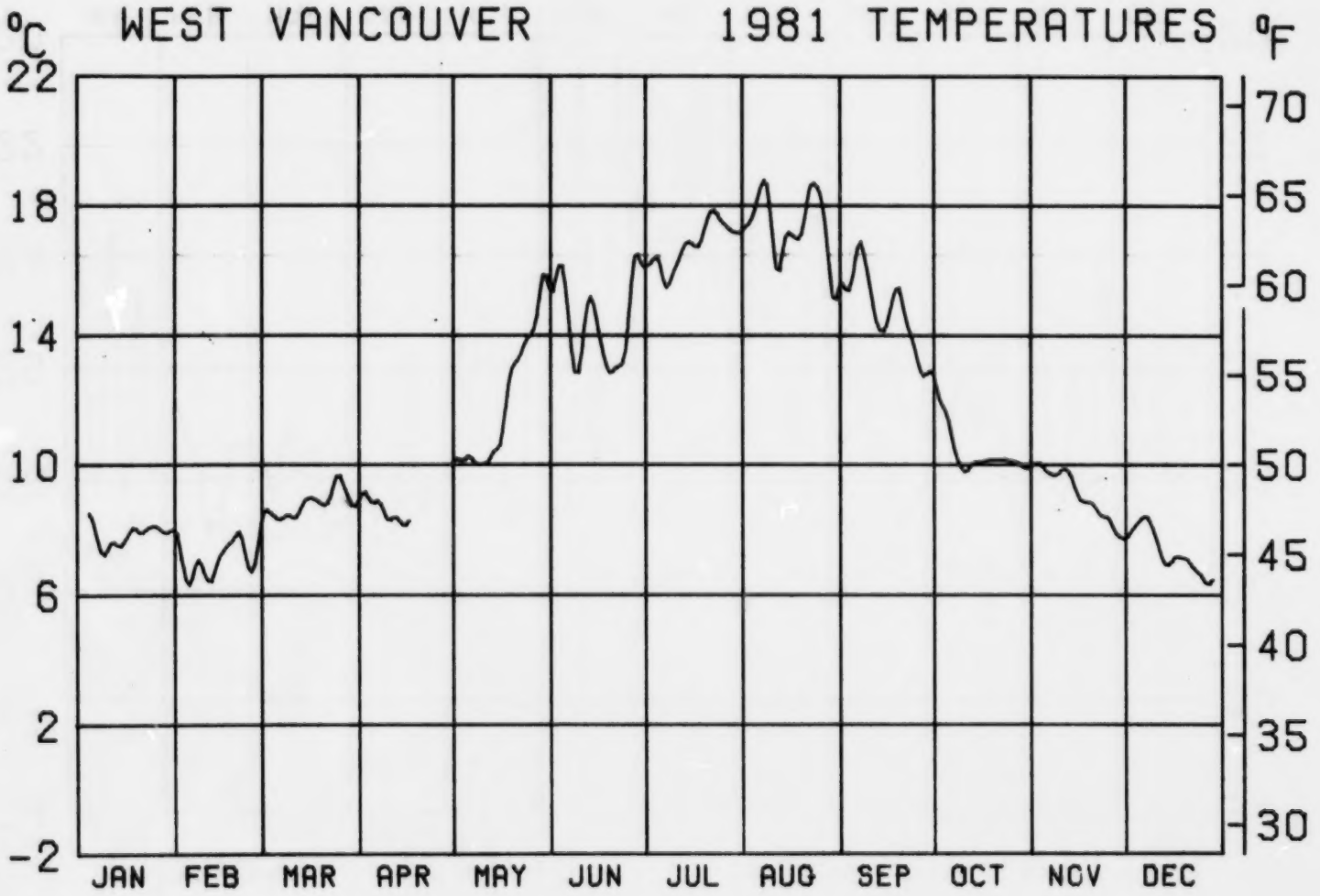
°C
WEST VANCOUVER
1981 TEMPERATURES
°F
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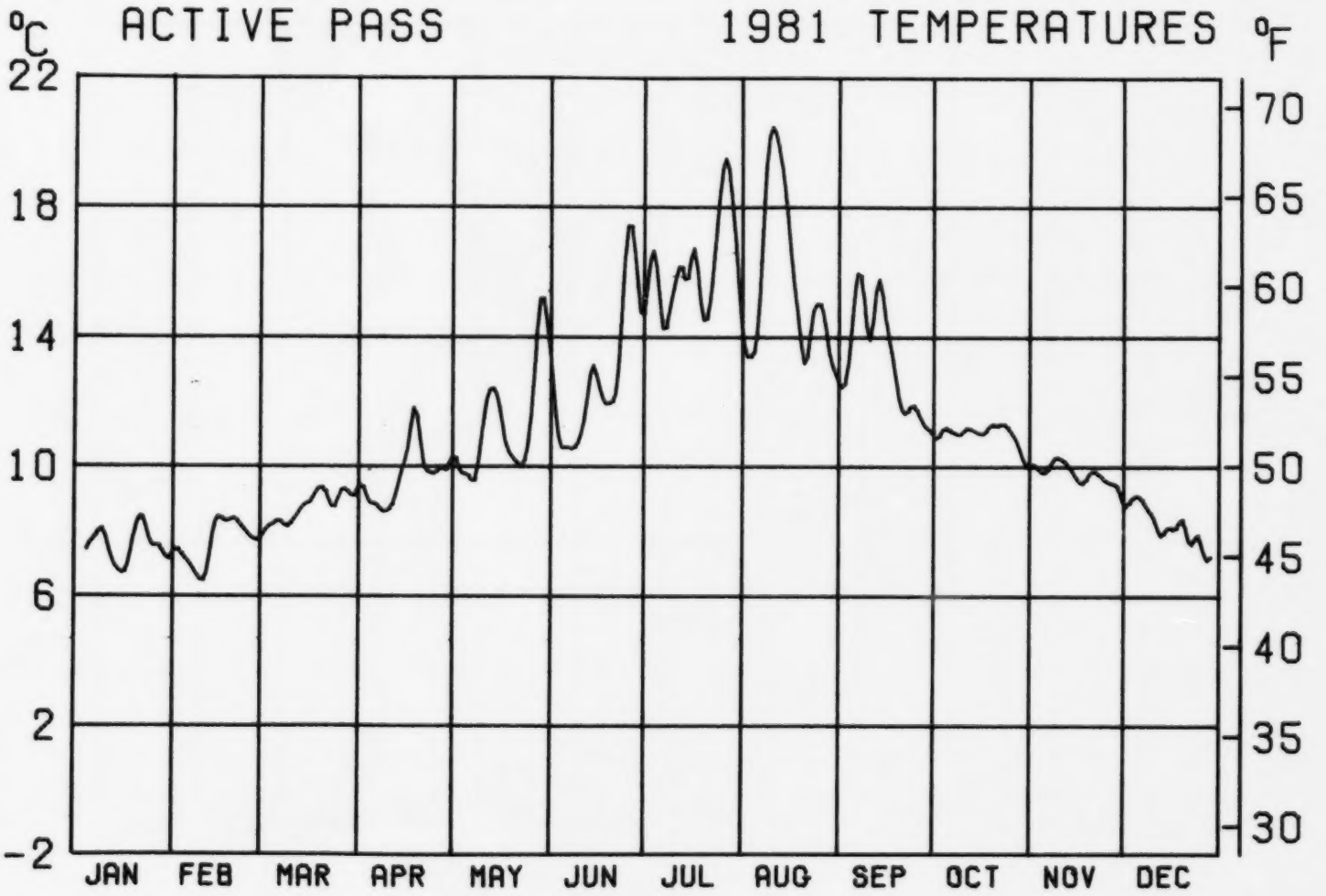
°C
ACTIVE PASS
1981 TEMPERATURES
°F
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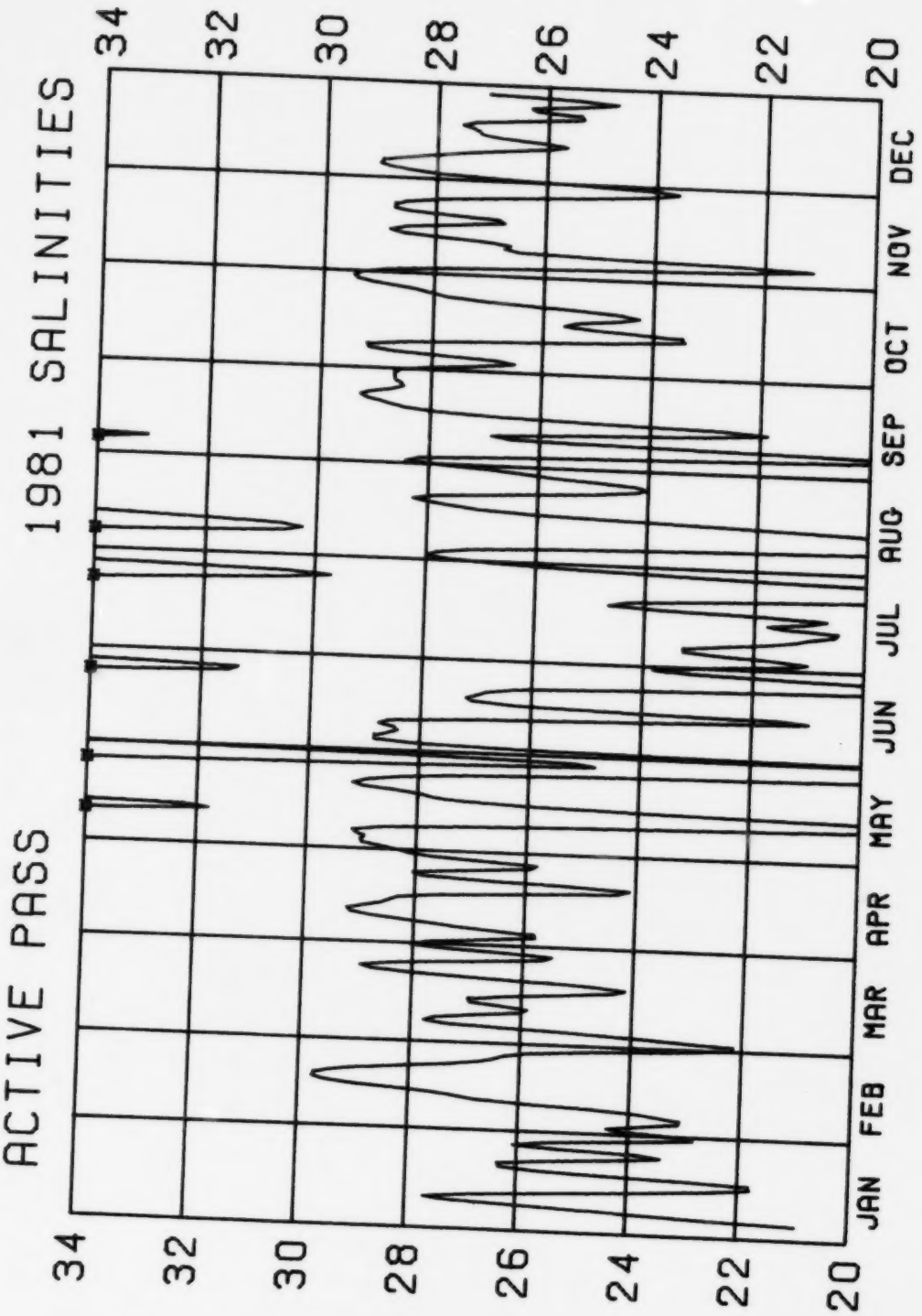
ACTIVE PASS
1981 SALINITIES
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JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC